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A HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY

BY THE SAME AUTHOR

Ethics in Theory and Application

Psychology in Theory and Application

THOMAS Y. CROWELL COMPANY
PUBLISHERS

A HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY

BY

HORATIO W. DRESSER, PH.D.

AUTHOR OF "PSYCHOLOGY IN THEORY AND APPLICATION," "ETHICS IN THEORY AND APPLICATION," ETC.

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PREFACE

This History covers the period from the dawn of philosophy in ancient Greece, 600 B.C., to the death of Bruno, 1600 A.D. It is designed as a text for half-year courses in the history of philosophy which end either with Plotinus or continue into the Middle Ages, and for the first half of full-year courses covering the whole history through modern times. It will also serve as an introduction to the more intensive study of Medieval philosophy for those who have already taken a sketch course in Greek philosophy. The History is continued into the period of the Renaissance and Reformation in order to prepare for the transition to Modern philosophy, beginning with Bacon and Descartes.

Some of the Greek philosophers are considered more at length than is usual in a brief history, with the hope that this History will serve as an introduction to the leading types of philosophy, and will not be regarded as a mere record of the successive but often conflicting systems. The typical Introduction to Philosophy is limited to an exposition and analysis of the central problems of metaphysics, logic, ethics, psychology, and other special sciences. In a few works on the subject an attempt has been made to combine the analytic and historical methods by emphasis on persistent problems and great systems,

notably in the modern period. Other writers adopt the genetic method throughout, on the ground that the direct approach to questions which have tested the genius of the great thinkers of the ages is made by studying the actual continuity of systems and critical reactions from the earliest times to our day. Moreover, this approach is in accordance with the education of Plato, Aristole, and other thinkers who trained themselves by acute study of their predecessors. In ancient times it was customary to study for a long period with the profoundest philosopher to be discovered, if one hoped to be a philosopher in full estate. So we may in a measure live with the classic thinkers, endeavoring to grasp the whole context of their thought, while also studying the intervals between the great systems. The objective is a critical estimate of philosophy as the thorough-going type of knowledge, not necessarily by means of sceptical scrutiny of all systems, but rather by testing conceptions which survived through sheer power to interpret the nature of things. The study of the history of philosophy in this way is of very great value in the rounding out of one's intelligence, even though pursued merely as a part of cultural education by those who do not expect to become scholars.

The aim of this book is to put the student of philosophy, the college student in general, and the general reader in possession of the sources of the early history of thought, by narrating the history as briefly as clearness and accuracy permit, in view of the great value of special periods. The historian of philosophy

can hardly hope to be original in this undertaking. Yet there is opportunity to do fuller justice to systems, such as the philosophy of Plotinus, also the more significant conceptions; and to bring to bear the results of research in allied fields and neglected departments of thought. Again, recent controversies yield new vantage-points from which to view the epochs of the past, even when the thought of one's age is not constructive. The more profound and advanced the science of our day, the better able we are to see what might have been the completed systems of the ancient Greek thinkers, had those scholars possessed the laboratory, the microscope, the telescope, and other instruments wherewith to analyze and measure. The student of the history of philosophy must ever be on his guard lest he read modern interpretations into ancient systems. Yet the more profoundly we enter into the scientific thought of our own age, the better prepared we are to re-think ancient systems and grasp their real value. There are fewer fundamental conceptions than one would suspect, and a far greater agreement among philosophers than is supposed to exist. We are likely to arrive at the few really significant conceptions in due course, if not misled by those who make light of philosophy. Every man has his way of making good what is lacking, by supplying from faith or speculation what he cannot as yet fulfill by appeal to fact. The ancients had the advantage of simplicity in this process. We possess such a mass of scientific information that we can scarcely classify and co-ordinate. This book is meant

to be a contribution toward the more intimate relating of past and present, as if in any age we were primarily concerned with Man Thinking.

The references at the close of sections and in the footnotes are mostly limited to works in English. The larger histories of philosophy contain elaborate references to works in other languages. More space than usual is devoted to some of the early Greek philosophers, with the understanding that if the beginnings are clear the later history will be read with greater appreciation. By the aid of Burnet's *Early Greek Philosophy,* and Bakewell's *Source Book* the student will become acquainted with the fragments at first hand. The references to Zeller, Gomperz, and other standard authorities indicate the chief sources for further study.

HORATIO W. DRESSER.

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Part One

HISTORY OF ANCIENT PHILOSOPHY

HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY

CHAPTER I

GREEK PHILOSOPHY OF NATURE

§ 1. Origin of Early Greek Thought

Philosophy as the term is used in the Western World began in ancient Greece, about 600 B.C. Its history shows how we acquired the great typical conceptions of man and the cosmos which today constitute our thought of the world. At first, philosophy was an inclusive whole, as indeed it long continued to be in lands where special sciences were not marked off within the greater field, as in Greece. A great advantage in beginning the systematic study at this point lies in the fact that we are able to follow the actual formulation of the various disciplines which today constitute the basis of exact knowledge and precise thinking. It is not necessary to look back to the origins of speculative thought in countries where philosophy began earlier than in Greece. Orientalizing influences entered the field in time. So did Christian teaching.

in other connections makes philosophy the ultimate intellectual enterprise in confronting the universe as a whole. Broadly speaking, philosophy is at once the science of the nature of things, of the values which make civilization supremely worth while, and of human nature defined with regard to these several quests, practical as well as theoretical. The history of philosophy discloses the ultimate types of thought from the time when speculation began to be free, amid the persistence of the keenest criticism and most determined attempts at rational reconstruction.

Beginnings of Philosophy.—The classic saying that philosophy begins in wonder or curiosity reminds us that history passes through stages of thought which we still enter and leave as individuals. There is a story-telling period when myths concerning creation and the gods begin to disclose a field of great interest in the world about us, a period when we ask questions but give little heed to answers in their connection. Later comes a period when doctrines are asserted and believed on authority, and later still the period when the individual ventures to question any sort of authority in behalf of reason. Memorable indeed was the day when men began to consider how the world could have been created out of nothing in six days. We all begin to philosophize when we demand as good an answer as can be given to any question concerning the whys and wherefores of life in this engaging world.

Philosophy begins when the primitive view of the world breaks down and authority crumbles, with the waning of both myths and simpler forms of religion,

and of the traditions by which these have been sustained. A certain degree of civilization and leisure are also demanded, with a measure of information concerning the world of physical things and events. For philosophy starts on the whole with large considerations, out in the open, and only gradually approaches the minuter things of the inner life of man. It seeks the logic of the world before the science of thought, the mind of the world before it becomes psychology, and beauty or order in the cosmos before the science of beauty appears.

Where Philosophy Begins.—In other lands, some of the essential conditions favorable to systematic thought had long existed, but Greece had all that was essential for the development of the classic types. In some countries, as in ancient China, there was no lack of moral teachings involving an art of life, but with less speculative interest in cosmic problems. In Egypt there were widely prevalent beliefs concerning the soul, the state of existence after death, also a degree of interest in mathematical principles for practical purposes.[1] In Persia a dualism of good and evil powers prevailed, but this dualism was a hope that the good would triumph rather than a rational interpretation leading toward science. The ancient Hebrews were profound believers in one diety, in the moral law with its divine sanction; and where such monotheism or ethical monism exists a long step seems to have been made toward philosophy. But the Hebrews were troubled by their alienation from deity, and the pos-

[1] Cf. Turner, *History of Philosophy*, 1903, p. 9.

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[1] Cf. Turner, *History of Philosophy*, 1903, p. 9.

sibility of salvation from a state of sin; they did not develop a reasoned system. India is the land to which we are now accustomed to look for all types of theory, and indeed many of the philosophic types were formulated there. But thought in India took on intensely subjective forms, mingled with a contemplative type of religion tending toward a mythical or pantheistic whole rather than toward the clear-cut conceptions of science formulating the conditions and processes of the great objective world. Individualism in philosophic thinking enjoyed its freest field in ancient Greece, and we may best understand the beginnings of science there by noting how, in any period, man breaks reflectively with his intellectual past.

Mythology.—The tendency to discard myths about creation and the gods manifests itself when there is dissatisfaction with the notion that the world was produced by some wonder-worker, who, on closer view, seems to have neither the power nor the material wherewith to call the cosmos into being. It is apparently a simple matter to believe in a primeval chaos from which deities or a world-order emerged, so long as no attempt is made to reckon with details. So too primitive man was long content with the view that the world was everywhere animated by forces resembling those which he vaguely felt in himself. But the primitive notion of the world was in fact a chaos of views, with no idea as yet of law or order, and without even a unifying rule of life.

In ancient Greece the mythical period, with the varying opinions emerging from it, doubtless resembled

the epoch in other lands where animism and polytheism long prevailed. But in Greece the myths which later assumed highly poetic forms were especially significant, and gradually led the way toward philosophy with fewer deviations in favor of doctrine or authority. Then too the Greeks possessed an exceptional personifying power, manifesting itself not only in various groups of deities, among whom were personifications of natural forces, the sea, and the sky, but also very human gods forcefully embodying traits of character, some of which were worthy of emulation on earth; and we find interest in nature branching off in one direction, poetry in another, moral teachings in a third. In the Homeric poems, when the gods had become promisingly human, with a certain type of life esteemed as reasonable, human conduct is applauded or condemned with anticipations of a central principle presently to displace chaotic notions about the gods. In Homer's view, all men are dependent on heavenly powers or immediate divine agency, the gods are guardians of justice, and so man's duty involves allegiance to divine authority.

The Meaning of Fate.—The poetic conceptions of the soul do not, it is true, lead very far in the direction of philosophy. The land of the dead beyond the Styx is little more than a spectral copy of life on earth, and very uninviting. But the golden precept of moderation in daily conduct gives promise of a moral ideal which is to have great influence. What seems missing is an idea of universal principles regarded from a single or consistent point of view. The

effort has been made to trace the beginnings of universality by reference to the poetic ideas of Moira (Fate).[2] But Fate is now apparently the will of the gods, and now it seems to be above the gods; since the gods are limited, younger than the world. Zeus figures conspicuously as source and leader of all, the all-ruler, and most-high Father; yet even he is not more powerful than Fate. Fate indeed is somehow so far independent of the gods that man is bound both by the will of the gods and by Fate. A suggestive poetic fragment reads: "All must suffer what Fate has decreed; but what Fate has decreed, I will suffer without fear."

One difficulty lies in the fact that nature has not yet been discriminated as the arena of law-exemplifying forces, or as consisting of matter in contrast with the life which animates it. Fate is rather the limit of right and wrong within a certain field than a natural or moral law, as we understand the term. Provinces were allotted to the gods with relative freedom, but without consideration of the interrelationship of their functions in a system. In Hesiod's poems the cosmogony (view of the world) relates to a time which on the whole is prior to that of the theogony (theory of the gods). Hence Fate is in a measure impersonal, without intelligence or design. To try to penetrate beyond this contrast between the gods and an apparently blind or automatic force, in order to reduce the myths about the gods to a system, would be to pass beyond mythology altogether.

[2] F. M. Cornford, *From Religion to Philosophy,* 1912.

Myths and Science.—After Hesiod's time the opportunity was ripe for the great step from chaotic myths, with no reason given why darkness and black night appeared out of chaos or why the broad-bosomed earth appeared, to the idea of causes operating according to law. The custom of telling tales about the gods, of narrating merely what had been, gave place to the effort to describe *what now exists.* To reflect on what now is, is to note that things and events are ever coming and going, that nothing seems stable. Hence the great philosophical question arises, What is deathless and ageless? And the effort is to determine what nature is when regarded as a primary and permanent substance. An explanation of cosmic changes is sought in the beginnings of things, with all the modifications of chance thrown out of account, and the idea of motion is transferred from the many objects in motion to an eternal motion appertaining to the original substance out of which all things have conceivably come. The myths had told how Zeus behaved. With the dawning of scientific interest the question was, how clouds are formed, or how life emerged from the sea: for the awakening of philosophic thought in Ionia was coincident with increasing information concerning meteorological phenomena, interest in animal life in relation to the sea, and the beginnings of thought about what we now call evolution.

The Seven Wise Men.—Again, there were promises of the philosophy which was to come in the sayings of the seven wise men, men who had looked more

deeply into human conduct to determine its meaning and who in pithy sayings summarized their observations. "Nothing too much," and "Know thyself" are among the wisest of these proverbs. There is no system while thought remains in the proverb-making stage, any more than in our saying, "Honesty is the best policy." But there is an effort to determine what is the universal way in which man should act. The lists of the wise men differ, and include twenty-two names in the various lists.[3] But four of them appear in all, Thales, Bias, Pittacus, and Solon; and among these Thales is the first of the Ionic philosophers. The end of the seventh and the beginning of the sixth century, B.C., is known as the age of these wise men or gnomic poets. This period marks the end of mere devotion to the conventions of previous ages, and the awakening of a reflective social consciousness. It meant too a greater prominence given to individuals, not as yet men of science, but men known for practical ability who were able to take the lead in crucial moments; and the first philosophers combine a measure of political ability with wisdom concerning life and interest in the cosmos.

Greek Religion.—Although the question of religion in ancient Greece belongs to another inquiry, which would be concerned with tracing the religious movement long after the dawn of philosophy, religious conceptions were influential in shaping the views of philosophers, and it is important to remember that the religious movement was active in the background of

[3] Cf. Zeller, *Outlines of Greek Philosophy*, trans., p. 27.

the philosophical field. One may not have thought of the Greeks as religious. They were not indeed contemplative, like the Hindoos, or subjective, like the Christians of the period when religion had become an introspective experience involving self-analysis and self-questioning.[4] The Greeks, as aptly described by Zeller, combined practicality with delicate feeling for the beautiful, with a deep and keen thirst for knowledge, a healthy realism and ideality, an acute perception, and a remarkable genius for the orderly and agreeable combination of individuals, the shaping of beautiful and consistent wholes. They did not isolate the self or soul from the world, and were scarcely aware of personality as conceived in Christian times. Mind and body, animate and inanimate, had not yet been distinguished. Nature was everywhere alive, the gods were not sundered from the visible world of things. Consequently religious experiences came from without rather than from within.

Again, a marked difference is due to the fact that the Greeks had no sacred literature set apart so emphatically that it became the centre of an authoritative priesthood or ecclesiasticism to ward off heresy and assign a prominent place to sin. Homer was indeed revered as a religious teacher. Beliefs about the gods exercised sufficient authority so that in a few instances at least philosophers were assailed in Athens for their impiety. Philosophy also fulfilled in a measure a critical function in freeing the Greeks from

[4] See J. Adam, *The Religious Teachers of Greece*, 2nd Ed., 1912, Chap. V.

ignoble ideas of deity. But as a rule the Greeks were free. The priests were merely public officials and were not set apart as a clerical class with dogmas to defend, as distinguished from poetry and the sayings of the wise men.[5] The prevalent conceptions of the soul, its state of existence on earth, the need of discipline and freedom, together with the mysteries as the equivalent of what Christians call conversion and worship, were simply expressions of a type of religion. This was on the whole a religion implying an interpretation of nature, and the Greeks, unlike the first Christians, were made more at home in nature by their religion, as indeed they united their religion with their political life. Lovers of beauty in the fair world about them, with its clear air and blue sky, its mountains and streams, its ravines and the shining sea, the Greeks turned to art more than to ritual or to doctrine. Hence the religious festivals were parts only of the total expression in objective forms of the plastic genius of the race. Hence too it has been remarked that the Greek's belief in the gods was "not to him so much an intellectual conviction as a spiritual atmosphere in which he moved."[6] The problems of conscience which so beset the Christian did not then exist for him. Even sin was an external contagion to be cured by objective rites. More significantly still, the Greek regarded virtue as natural. This view found classical expression in several types of ethical theory, beginning with the time of Socrates.

[5] Cf. Myers, *History As Past Ethics,* 1913, p. 173.
[6] Dickinson, *The Greek View of Life,* 5th Ed., 1906, p. 16.

The Mysteries.—Nonetheless, there was a mystical element, with marked emphasis on redemptive rituals, and the virtues of secret ceremonials and doctrines; and it is the doctrine emerging from this mysticism which finds expression in philosophy. The Eleusinian mysteries, centering about the stories of Demeter and Persephone, with a prospect of immortality guaranteed to the initiates, were much less influential than the Orphic mysteries, which turned upon the cult of Dionysus, god of wine and inspiration, and pertained to the dualism of man's nature, with a ritual of exaltation and self-abandonment intended to be a response to the yearning of the soul for redemption from evil.[7] Even as early as the eighth century, B.C., this cult exerted widespread influence in Greece, and later it spread with the carrying power of a revival through both Greece proper and the colonies, notably Crotona, in Italy, where the Pythagoreans assimilated Orphic religious ideas and united these with a cosmology. The Orphic teachings included a theogony, with a mystical identification of deity and the world; and views of the origin and destiny of the soul, with special reference to the body as the prison-house in which the soul is held because of ante-natal sin. Because it is bound by the wheel of generation to a series of incarnations, the soul must do penance, purify itself by abstinence from animal food, observe rules of obedience, and employ rites and ceremonials as aids to freedom. For us the significance of this

[7] B. A. G. Fuller, *History of Greek Philosophy*, 1923, p. 47, foll.

movement is that its view of the soul played a prominent part not only in the teachings of the Pythagoreans, but to some extent in the views of Empedocles, by implication or contrast at least in the teachings of Heracleitus and the Eleatics; while Plato also adopted the idea that the soul is a prisoner in the flesh. Early Greek philosophy as a whole was not alone a critical reaction against the myths, but it also tended to retain belief in some kind of divine principle, to find a simpler, more rational view of the soul, and to establish the soul in a well-balanced life. The mystical view was not separated from the typical ideal of a beautiful soul as a "harmony" manifesting its nature in a beautiful body. The body was naturally a fit domicile for man in his many-sidedness, whatever limits it might impose. Because the Greeks were artists in their scheme of practical life they were saved from the excesses of any religious view. Hence one bears in mind throughout, when studying either their religion or their philosophy, what they achieved in poetry and the arts, what ideals they sought to portray in painting and sculpture, in music and literature, and what they sought to achieve in their games and their plan of education.

Beginnings of Rationalism.—To make the account complete, we bear in mind also the environment of Greek life in its bearings on commerce, exploration and colonization, noting the political changes which were favorable or unfavorable to the reflective life, and the changes in consciousness which gradually expressed themselves in literature, as the primitive

optimism of Homeric times disappeared and criticism of traditions marked the appearance of increasing reaction. In ancient Greece there was, as Gomperz puts the matter, a "remarkable conjunction of natural gifts and conditions . . . a teeming wealth of constructive imagination united with the sleepless critical spirit which shrank from no test of audacity; there was the most powerful impulse to generalization coupled with the sharpest faculty for descrying and distinguishing the finest shades of phenomenal peculiarity." [8] In political life varied forms of government were being tried out, and the movement away from tyrannies toward democracy and the guidance of wiser men was to influence philosophic thought. The moral teachings of the profounder poets and the wise men were at once contributions toward a better state of things and a judgment passed on any society which lacked a standard of justice. It was first necessary to disclose human weaknesses in order to spur men on toward freedom and greatness as individuals. The powers of personification and imagination were not wholly to give place to the demand for rationalization, but were to persist in the new effort to envisage nature as the field of indwelling forces, the idea of supernatural powers having been laid aside. What is demanded of us as students of the transition to philosophy which took place about 600 B.C. is reconstructive thought enabling us to enter vividly into the new scientific interests which were emerging, so that, granted a fragmentary saying, concerning water, air,

[8] See *Greek Thinkers*, trans., Vol. I, Introd.

or fire, we may have before us a typical cosmology.

The First Problems.—The change to philosophy from mythology and religious beliefs unable to survive criticism was the logical carrying out of the unfulfilled tendencies of thought to which we have briefly referred. From conflicting ideas of the supernatural it was reasonable to go forth in quest of natural causes of the phenomena of earth, sea, and sky, without permitting even a vestige of belief in the gods to remain unless the divine in nature could be connected with observed phenomena. From the point of view of a multiplicity of beings exerting their influence without sufficient power to command the forces of the world as a whole there was a natural transition to the idea of one substance-energy, so that unity vs. plurality became a prevailing scientific interest. Carefully ascertained facts were adopted as the basis of a reasoned view because of the same demand for unity, a unity which did not exist in any tradition. By the time philosophy had made even its beginnings it was already in sight of the two great typical problems which still engage us whenever we break free from myth and dogma and venture as individuals to reflect for ourselves: (1) What is the enduring stuff or substance which persists through all changes of form in the realm of transitory things and passing events which confronts us? (2) What is the cause, or what are the causes of this ceaseless coming into and passing out of form and event as the great process goes on? The philosophy of the Ionians is significant for us

because it radically narrows the situation to a view of the nature of things implying verifiable facts, a conception which can be followed consecutively and which is to be tested and modified by further observation.

Early Sources of Science.—The widening of the intellectual horizon as a result of travels, maritime enterprise, and colonization was, mentally speaking, one of the causes of this transition to a single point of view. If the Greeks were gifted with powers of personifying imagination, so that they permitted it free play in any field, they also possessed power to portray objects and occurrences with a demand for clarity and distinctness of thought. Whatever they may have borrowed from the Egyptians, Babylonians, and other peoples, they made these adopted mathematical and astronomical views their own, showing their originality and the appearance of the scientific motive in contrast with purely practical interests.[9] The change to purely scientific interests meant that darkness and night had ceased to be terrors, that the thought of law had taken the place of ideas of "luck," of references to the jealousies and angers, the contentions of the gods; yet there was a measure of poetry in the thought of water, air, or some other substance conceived on the basis of observed phenomena, and so in a way a passing beyond what was visibly given to a reconstituted universe with an element of beauty about it. None of the propositions concerning nature is very significant or satisfying, taken by itself. But these primitive conceptions were

[9] Burnet, *Early Greek Philosophy*, 3rd Ed., p. 23.

later to find places in the first great systems, after the problems of the One and the Many, Being and Becoming had been dwelt upon sufficiently to yield the classical points of view, to disclose a method of thought, and to call for an idea of man to complete the given world-view.

Divisions of the History.—It is customary to divide ancient philosophy into periods, according to the prevailing problems or interests. 1. The cosmological period, from about 585 to the middle of the fifth century, B.C., includes the Ionians, Heracleitus, the Eleatics, Pythagoras, and the Pluralists: Empedocles, Anaxagoras, and Democritus. The first philosophy is physical or naturalistic. The physical forces are at first identified with the original substance, then differentiated from it, as the notion of a single element gives place to that of four or an infinite number of elements, and as quality is brought into contrast with quantity. 2. The period of enlightenment during the fifth century is also an age of transition from interest in speculations on the nature of things to the study of man. It is the age of the Sophists, who direct attention to the problem of knowledge, emphasize individual opinion, and encourage their pupils to fit for public life by adopting ideas that are useful rather than metaphysical. 3. The age of Socrates and the systematic philosophers covers the period from 430 to 320, B.C., and is the period of greatness in Greek philosophy, when knowledge is differentiated as science, and the various divisions of philosophy are marked off by Aristotle. 4. The period from 320

B.C. to 529 A.D., includes not only the Post-Aristotelian schools, the Epicureans and Stoics, but an intervening age of scepticism which precedes the religious period of Hellenistic-Roman philosophy. This epoch ends with the closing of the schools by Emperor Justinian. The history of philosophy as a whole falls into three periods: 1. Ancient Philosophy, 585 B.C.–529 A.D.; 2. Philosophy of the Middle Ages, to 529–1600 A.D.; 3. Modern Philosophy, 1600 to date.

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§ 2. Ionian Philosophy

The Problem of Change.—The birth of philosophy was not in Athens, or even in Greece proper, as one might expect, but in one of the colonies, Ionia, the name applied to the coast-land of Asia Minor and the adjacent islands, the home of the first philosophers being in Miletus, one of the richest Greek cities of that time. We know very little about these pioneer thinkers, or what they taught, and must depend on a few fragments of their teachings which have come down to us, together with the comments of philosophers of a later period. But we may rightfully presuppose keen observation and reflection on their part, sufficient to lead to the search for a unitary principle wherewith to explain the world. It was no small attainment to reduce the cosmic problem to an attempt to account for precisely the world that lay before them, shorn of all fancies, and investigated for truth's sake. Whatever else the presented world might be, it impressed these thinkers as a realm of *change,* hence as a living reality which

had somehow come to take on its present forms and marvellous variety because of events or processes that had gone before. And so, the Ionians quite naturally sought a theory of cosmic development, instead of adopting the more circuitous thought of those who begin with an idea of creation. Their philosophy is crudely physical, and yet strictly speaking the Ionians were the first men of science in the world, the first to select from the mass of human ideas those conceptions which were in time to become distinctive of philosophy in the profounder sense, in contrast with any religious bias or practical preconception.[1]

Thales.—First among the Ionians was Thales, born in Miletus about 624, and died about 548 B.C. He was doubtless one of the leading men of his day, eminent as a citizen, mathematician, astronomer, engineer, and inventor, as well as a sage. He is said to have urged the Ionian Greeks to unite their cities into a federated state. He foretold the eclipse of the sun which occurred May 28, 585, possibly without knowing the cause of eclipses, by means of the theory of the lunar cycle known to the Babylonians, who had noted the recurrence of eclipses for purposes of divination. Thales may have visited Egypt, for he introduced Egyptian geometry into Greece, he had a theory of the inundation of the Nile, and is said to have measured the distances of ships at sea from a watch-tower and the height of the pyramids by Egyptian rules of mensuration. If he wrote books, these have perished, and only a few probable sayings are

[1] Burnet, *Early Greek Philosophy*, p. 40.

attributed to him, notably the saying, "All things are water." By "water" was meant the nature of things as primary substance-force, a plausible conception for one who was beginning to regard the world scientifically, as water appears under various forms in the sky and on land, as the seeds of animal life are moist, and all things come into being through moisture. Water was in brief the universal element in spontaneous motion, not moved from without as if by a god; and water may have been chosen as a mean between solids and clouds, hence not as a persistent stuff in one form but as the most changeable. It was not then regarded as an abstract substance but as a living water, with something of the divine in it. Thales also taught that the earth floats on water, according to Aristotle. Water had the power of persistence through the entire cycle of natural processes, as observable in liquids, vapors, and solids, that is, especially in all meteorological phenomena. Thales may have said that the magnet and amber have souls, but not much is to be made of the idea of a soul, or of the saying, "all things are full of gods," save to note that Thales dwells on the intimate relationship between the nature of things as substance and as moving principle, however the plastic life of matter might be regarded.[2] Thales is significant because his quest for a first principle marks the promising separation of the scientific interest in mathematics, astronomy, and the study of nature in general from all prior confusions between mythical forces in nature and actual phenomena, ca-

[2] Cf. Burnet, *op. cit.*, p. 50.

pable of being accurately observed as measures; and because he saw in the world-process a cycle of events or changes capable of being accurately investigated and envisaged.

Anaximander.—Born in Miletus about 611, and died about 546 B.C., Anaximander is hardly to be called a pupil of Thales in the modern sense, for there is as yet no school; but he adopted and developed Thales' conception of nature, while seeking a more plausible explanation. He was known for his practical inventions, his interest in astronomy and geography, and as the first scholar to construct a map. In quest of a first principle to account for substances and events actually discoverable, water, air, and other things which might be selected, seemed to him to be limited in amount; hence there would not be enough to explain mutations and occurrences in the total cosmos. The primary substance must have various qualities, to be the basis of water, air, and other forms of matter; hence it must be described in more general terms as the Boundless—not the infinite, in the modern sense, for it was still a physical something. The Boundless, indestructible, eternal, never growing old, was regarded as surrounding and imbuing all worlds, determining all being and generation, the sole cause and ground of all change. Existing things were looked upon as in rebellion against this indefinite Something, as if they would exhaust its forces; howbeit the Boundless is sufficient to meet all waste, able to survive any change in particular things. Anaximander had doubtless reflected on the fact of opposition or

strife between warm fire and cold air, the dry earth and the moist sea; and any predominance of the one element over the other would have seemed to imply what he called "injustice." Therefore he speaks of things as "suffering punishment," and giving satisfaction to one another for injustice. Burnet argues that if Thales had been right it would not be easy to see how anything save water could have existed.[3] Hence the Boundless must contain all things, to it all things will return, to redress the balance underneath all oppositions; it must not only surround but direct, produce and govern all, its eternal motion being the ground of the "separating out" which yielded all particular things. Anaximander seems also to have held that there are innumerable worlds in the Boundless, all being perishable, like our own. He may have explained heavenly bodies on the analogy of lightning. The origin of the earth and sea was from the moist. The warm and the cold were separated off first; then came the damp, from which appeared the earth, air, and the sphere of fire surrounding the earth. Living creatures arose out of the moist element, during evaporation. Man too was derived from the fish; since otherwise he would have been helpless during his long infancy, and before the appearance of the dry ground. There was a struggle to survive through adaptation to different environments. The idea of the divine persists in this teaching in a general way, that is, the Boundless is divine, while the soul is like "air" in its nature. In this philosophy we may detect

[3] *Ibid.*, p. 54.

at least a vague groping after what we denote as the conservation of energy.

Anaximenes.—The third philosopher of this group, Anaximenes (588–524 B.C.), wrote a prose work which survived till the age of literary criticism. His view was a union of the conceptions of Thales and Anaximander. The idea of the Boundless was identified with air as less palpable than water but more comprehensible than the Boundless in general. Air, as essential to life, is known in part by experience, and is easily changeable. The only fragment that has come down to us reads: "As our soul, which is air, holds us together, so wind and air encompass the whole world." That is, air, as constantly in motion involves the idea of inherent activity, in rarefaction and condensation, growing hot and growing cold.[4] Air by rarefaction becomes fire, fire borne aloft becomes the stars, worlds appear and disappear in the air. This view has been regarded as a retrogression or compromise. But the idea of rarefaction and condensation is a contribution to the Ionian cosmology. "Air" is not simply what we call by that name, but is also vapor or mist, and occupies a sphere between two fundamental opposites, flame and cold, air being warmer when rarefied, colder when condensed. As human breathing proceeds, so the whole world proceeds. The earth is imagined as a table-like disc floating upon air; the sun, moon, and the planets are also fiery discs. Air is the basis of innumerable worlds. Anaximines is said to have explained lightning as

[4] Windelband, *His. of Anc. Phil.*, trans., p. 44.

Anaximander had accounted for it; hail as produced when water freezes in falling, snow when there is some air imprisoned in the water; while the rainbow is produced when the beams of the sun fall on thick condensed air. In antiquity Anaximenes was regarded as greater than his predecessor, and he it was who most influenced Pythagoras, Anaxagoras, and the Atomists.[5] Diogenes of Apollonia[6] reverted to the theory that air is the primary substance, and the philosophy of Anaximenes was often regarded as the Ionian or Milesian theory as a whole.

Summarizing, we note that the Ionians stood for scientific research as opposed to mythology or theology, in the effort to explain what abides in all change in terms of a primal stuff out of which the ordered nature of things has been developed. Thus began the great quest for the reality behind all appearances, what is universal in contrast with all particular events and things. We also see the beginnings of a theory of evolution by means of immanent activity and adaptation to environment, by derivation of multiplicity and variety from one primordial substance. Hence arose in time the problems of Being and Becoming, the One and the Many. The problem of motion had not yet arisen, for motion was readily assumed to be eternal.

[5] Burnet, *op. cit.*, p. 79.
[6] Windelband, *op. cit.*, p. 101; Erdmann, *His. of Phil.*, Vol. I, p. 24.

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§ 3. The Number Theory. Pythagoras

Life of Pythagoras.—One of the greatest leaders of antiquity, Pythagoras was regarded by the Greeks as a prophet. He was born on the island of Samos, between 580 and 570 B.C., of a wealthy family, probably of Doric origin. It is difficult to tell what he taught in contrast with the teachings of his school during a long period. Myths concerning him were circulated for centuries, and marvels were put forth to offset claims in behalf of Christ. He left home when young and travelled extensively, some say to Egypt, Judæa, Phœnicia, Chaldæa, and India; but the reports of his travels are not authenticated. He was said to be the first foreigner to enter the higher degrees of the Egyptian mysteries, and to have learned from the Phœnicians the nature of numbers, their significance and proportions, while the Chaldæans instructed him in astronomy. More probable is the report that as Samos was ruled by Polycrates, a tyrant, he early raised questions about the construction of society and sought a better mode of social organization. Later in life he settled in Crotona, Magna Græcia, a city which had friendly relations with Samos, and was famed for its athletes and doctors. There he founded an ideal society, about 529. Remaining in Crotona

about twenty years, he left when a revolt arose against his authority, and died in Metapontum about the year

The Pythagoreans.—His ideal society was a brotherhood of carefully chosen followers, consecrated men who had cut loose from the existing order, a religious rather than a political order, the primary interest being to foster the best mode of life. Reports indicate that there was a long period of preparation on the part of novices, with rules of obedience for the conduct of life involving purity and abstinence from flesh food, although Pythagoras may not have been a total abstainer. The object of this preliminary training was evidently the overcoming of sensuous desires and selfishness, with the hope of setting the soul free from all bondages. The devotees are said to have worn white robes. The saying current among them: "Keep away from beans," is said to mean, stay away from politics. Since the soul was thought of as imprisoned in the flesh, there was need of purification as a means to improved re-birth. The idea of refraining from animal food may have been due in part to the notion of kinship between man and animals. The members of the order were apparently learned men, as well as men of fine qualities. The rule of silence was part of their discipline. The saying, "Count nothing as your own," implies that they held all property in common. The idea of the soul as bound for a time to this earthly existence, to the "wheel of life," with the necessity of re-births, although much the same as a doctrine prevalent in India, was probably taken over

directly from the Orphic sect.[1] Both the rules of life, and the ceremonials and rituals which formed part of the discipline centered about the idea of release from the body. The community of goods was part of the right life as a preparation for future modes of existence.

The authority and example of Pythagoras were very great, hence the expression of personal authority: *ipse dixit,* has become classic. The saying, *e pluribus unum,* attributed to Pythagoras by Cicero, is also characteristic. The influence of Pythagoras as a leader was indeed greater than that of any specific teaching, for instance, the influence on Plato, on Greek thought and education during several centuries. The instruction was oral only, as Pythagoras left no writings. The doctrine may have been secret. The mode of life lived by this brotherhood was too ideal for the age, and likely to have ominous political bearings; hence the sect was persecuted in Crotona, the meeting-place was burned, some of the members were killed, and others driven away, between 440 and 430. Among the latter were Archytas of Tarentum, who found a home in Greece, and Lysis, who escaped to Thebes. Through this misfortune the society came to an end, but the influence and teachings continued in various countries for generations.

Whatever Pythagoras may have gathered from other sources, he is commonly regarded as the originator of the number theory which is the central fea-

[1] On the resemblances to Buddhism, see Weber, *His. of Phil.*, trans., revised Ed., 1925, p. 22, n.

ture of the school bearing his name. The teaching was formulated by Philolaus in the second half of the fifth century, B.C., and continued by Archytas, Lysis, and others into the fourth. To avoid difficulties in distinguishing the work of the master from that of his followers, the teaching is customarily attributed to the Pythagoreans as a school.

The Philosophy of Number.—The first philosopher to turn decidedly to mathematical speculation, Pythagoras is also said to be the first to use the term "philosophy," love of wisdom. Taking note of form and relation in the world, the Pythagoreans find measure, order, proportion everywhere as their guide to the nature of things. The idea of mathematical relations suggests obedience to law, therefore uniformity, system. Number must then be the basic principle of the cosmos, implied in the structure of reality; the true substance of things, corresponding to the "water" of Thales and the "Boundless" of Anaximander. Numbers are virtually entities, laws, substances, forces of nature, causes of all events. The world-principle exists in orderly geometrical relations, our social and moral relations are also thus ordered. Number is not only attributable to perceptible forms, but is used in purely conceptual terms: 1 is the point, 2 the straight line, 3 the plane figure, 4 the solid, and so on. Again, earth is a cube, fire a tetrahedron, air an octohedron, water an icosohedron. Unity (Monas) as absolute is the Monad of monads, or ultimate principle of all particular beings: the One is put in contrast with 2, 3, etc., the Many, or plurality, regarded as derived.

Opposition between the One and the Many is the source of all other entities or principles; all contrasts are varieties of the One and the Many, the odd and the even. Plurality as such then has no consistency. Absolute unity is in a way neither odd nor even, yet also both odd and even. The first relation is odd and even, then come the limited and the unlimited. The number 10 is perfect, containing the properties of all others; hence the list of ten opposites: limited and unlimited (finite-infinite), odd and even, one and many (unity-plurality), right and left, masculine and feminine, rest and motion, straight and crooked, light and darkness, good and evil, square and oblong. The heavenly bodies are ten in number, the nine that are visible and the *Anticthon* (counter-earth), assumed to make the system complete. Numbers yield both the material substance of things, and their properties and states. Number, as the ordering system of the cosmos, is then by no means abstract, but is actual, eternal ground of all substances. The Unit is also interpreted as the central fire of the universe, the first to take shape in cosmic evolution. Limit then is the active, creative energy; while the unlimited is the passive, that is, an infinitely extended substance in which cosmic functions begin: more and more of the unlimited being brought under the sway of Limit, as cosmos or order increases, while the unlimited still stretches to infinity outside the perceptible world.

So too the principle of Number applies to non-corporeal things. Justice (which returns equal for equal), friendship, love, virtue, health, are thus under-

stood. Square numbers return equal for equal: so 4, equaling 2 into 2, may be regarded as justice; although 9, as the square of 3, was by some Pythagoreans identified with justice. Love and friendship were expressed by 8, because they are harmony, and the octave is harmony. The quality of matter depends on the number of sides of its smallest particles, according to Philolaus: the matter which has the smallest particles as regular tetrahedra is fire, while earth is composed of cubes.

Astronomical Theory.—Before the time of the Pythagoreans the earth was regarded as the centre of the universe, but the Pythagoreans introduced the idea of the revolution of the earth round the central fire, which is not the sun, for the sun also revolves round this fire. The earth then is one of the planets. The fixed stars are fastened to the highest arch of heaven, which revolves round the central fire during a great cycle. Below the heavenly arch, in concentric spheres, are Saturn, Jupiter, Mars, Mercury, Venus, the sun, moon, earth, and invisible counter-earth, which screens the earth from the central fire. The earth and counter-earth so revolve round the central fire as to keep the same face turned toward each other; hence we, living on the other side of the earth, do not see the counter-earth. The sun, encircling the central fire, reflects the light of the latter body. As the movement of the spheres represents an octave (harmony), and as every sphere produces its own tones, so the harmony (music) of the spheres results. Although this astronomical system was theoretical in its assumption of the

"counter-earth," it was greatly superior to the theory that the earth is the center of the universe, and it might have led the Greeks and their successors to the heliocentric theory had not the geocentric hypothesis held sway under authority which was not questioned. The direct way for the adoption of the heliocentric theory was prepared by Aristarchus of Samos, in the third century, B.C.; the hypothesis of the central fire and counter-earth was dropped, and Hicetas and Ecphantus taught that the earth revolves on its axis. Thus the Pythagoreans, more surely than any other thinkers, prepared the way for the modern conception that the sun, not the earth, is the center of our solar system, a theory which had to await the days of Copernicus to receive due recognition.

Ideal Values.—The Pythagoreans are said to have been the first to call the world "cosmos" (order). Emphasis was put on harmony as universal principle, expressed mathematically as number; ethically as obedience to law, balance, righteousness (justice); and in music in terms of octaves. The term "sphere" implies a later conception, and the expression "the music of the spheres" is a poetic interpretation of this doctrine. So too "harmony" as the term was later used involves values not to be attributed to Pythagoras. The idealistic or value element quickened others, however, and in Plato's philosophy the idealism of harmony and number takes on classic forms. Pythagoras made musical as well as mathematical discoveries, and the discovery of the sphericity of the earth. Aside from the creation of the science of

geometry, his great contribution to science is said to be his discovery that the concordant intervals could be expressed by simple numerical ratios. This suggests an entirely new view of the relationship of "opposites," which had become a popular term in Greek thought. "If a perfect attunement of the high and the low can be attained by observing these ratios, it is clear that other opposites may be similarly harmonized. The hot and the cold, the wet and the dry, may be united in a just blend, an idea to which our word 'temperature' still bears witness." [2] The medical conception of temperature is from the same source, and Burnet finds in the famous Greek ethical idea of the Mean ("nothing to excess") an application of the same principle in the realm of conduct. So the idea of the perfectly tuned string becomes classic in Greek idealism. Pythagoras is notable for having taught philosophy as a "way of life" which his followers endeavored to realize in its fulness. Thus the wise man's ideal began to have great influence as the union of philosophy and religion.

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[2] Burnet, p. 112.

§ 4. The Conception of Being. Xenophanes

Xenophanes as Reformer.—Because of the central idea of his teaching (Being), Xenophanes belongs with the Eleatics, whose philosophy we are presently to consider. But as critic of Thales and Pythagoras, and of the prevalent religious conceptions, he belongs in an intermediate position, prior to the philosophy of Heracleitus, which in turn is in contrast with Eleaticism. Again, his elegies and iambics are directed against Homer and Hesiod, and so he belongs to the period of retrospect and iconoclasm.

Xenophanes was born in Colophon, in Asia Minor, about 570 B.C.; he emigrated to Elea in Southern Italy, and spent 67 years wandering up and down in Greece, reciting poems assailing the theology of Homer and Hesiod. He is said to have written a book at the age of 25, also a long poem *On Nature* when 92; only fragments of this work remain. He was both critic and reformer, believing that he had a mission in opposing the national mythology and proclaiming the unity of the godhead. In one of the fragments he says, "But mortals think that the gods are born as they are, and have perceptions like theirs, and voice and form." [1] In another fragment he continues, "Yes, and if oxen or lions had hands, and could paint with their hands and produce works of art as men do, horses would paint the forms of the gods like horses and oxen like oxen. Each would represent them with bodies according to the form of each." "So the Ethi-

[1] Burnet, p. 119; Fairbanks, p. 67.

opians make their gods black and snub-nosed; the Thracians give the gods red hair and blue eyes." Yet having pointed out that all ideas of the gods betray the nature and limitations of man, Xenophanes has little to offer as a substitute for this way of thinking. He is far more iconoclastic than constructive.

Idea of God.—His idea of God bears some reremblance to the Orphic emphasis on the divine unity in Zeus, and his chief thought is unity in contrast with multiplicity. For him there is "One God, the greatest among gods and men, neither in form like unto mortals nor in thought," who without toil, "swayeth all things by the thought of his mind." Abiding in one place, unmoved, God sees all over, thinks all over, and hears all over, in all his parts. God is unlimited in the sense that there is no other first principle, yet limited because he is not a formless infinite, but is a sphere or perfect form: whatever motion exists is a change in relationship of parts, not of the whole. As a pantheist, Xenophanes conceives of God as the One and the All regarded as so far removed from ordinary mortality as to be devoid of the frailties commonly attributed to the gods. Yet at times his conception is left in doubt, since he does not seem to have wholly discarded polytheism. "Homer and Hesiod have ascribed to the gods all things that are a shame and a disgrace among mortals, stealings and adulteries and deceivings of one another." In contrast to the myths, Xenophanes celebrates the morality and truthfulness of God. So too he inveighs against all that is merely superficial and worldly in his fellowmen, calling attention to higher

things; and against mere opinion or speculation, in contrast with knowledge. Here again however he has little to offer. So far as he attempted to account for the origin of physical things, he seems to have agreed with the Ionians. His God is apparently little more than this visible world in which we live, i.e., a world-God or living soul-body, whose eye, thought, hearing are the basis of all activities, although the godhead as such is unmoved, unoriginated, imperishable.[2]

Being and Becoming.—This emphasis on the ultimate Ground of all multiplicity involves the conception of Being as removed on the whole from the processes of the world. Hence the question arises, How shall Becoming be accounted for? Another problem also arises: if men's ideas about the Godhead are anthropomorphic (conditioned by man's ideas concerning himself), what is the relation between opinion and truth? Xenophanes is unable to penetrate beyond his own paradoxes. "There never was nor will be a man who has certain knowledge about the gods and about all the things I speak of. Even if he should chance to say the complete truth, yet he himself knows not that it is so. But all may have their fancy."[3] Thought about the cosmos is left with the idea of a cycle: "All things come from the earth, and in earth all things end." In Xenophanes however we also have a scientific observer, for he is reported to have made a study of shells found in midland districts and on

[2] See Adam, *The Religious Teachers of Greece*, p. 209.
[3] Fr. 34, trans. by Burnet.

hills, and to have pointed out that in the quarries at Syracuse was found the imprint of a fish and seaweed, and elsewhere impressions of marine life and vegetation, the inference being that men and animals were developed from life in the sea and primordial states of the earth. But Xenophanes is on the whole sceptical of cosmological (world-view) theories, delighting rather in paradoxical utterances than in the effort to be consistent. Diogenes Laertius reports that when another philosopher remarked to Xenophanes that the wise man was not to be found, Xenophanes answered, "Naturally, for it would take a wise man to recognize a wise man."[4] He advised people to "Have intercourse with tyrants as little as possible, or as agreeably as possible." He was then keenly aware of human defects, and on the alert to provoke thought even if he had no system to offer.

§ 5. The Problem of Change. Heracleitus

Thus far the tendency of cosmological thought has been to take motion or change for granted, and to direct attention either to an immutable first principle, substance, or Being, or to its orderly arrangement in terms of "number." Becoming (change or evolution) was taken for granted, as obvious in the world about us: Being (first Reality) was the central problem, as we shall see more clearly when we turn to Parmenides. Meanwhile, Heracleitus appears as advo-

[4] Trans. by Fairbanks, p. 78.

cate of a far-reaching conception of Becoming of great moment in the history of thought.

Heracleitus. — Born in Ephesus, Heracleitus (535–475 B.C.) came of a noble family, and is described as an uncompromising aristocrat, ever scornful of the common people, critical in the extreme, at times pessimistic, dogmatic, proud, disparaging all others who attempted to philosophize save himself, self-taught, as he claimed to be. He wrote a book said to have been in three parts, physical, ethical, and political, only fragments of which remain. Although he wrote forcefully, with oracular utterances tending to stimulate thought, with vivid imagery and subtle irony, his style is obscure, and he was known as the Obscure even in antiquity. It should be noted however that a clear scientific prose style had not yet been achieved by any one. Hence it was necessary to use metaphors, to "dig for gold" amid much earth. On the whole, too, "Nature loves to hide," and Heracleitus notes that even the oracle at Delphi shows signs only of the intended meaning. Thought indeed contends with a primary difficulty in its effort to formulate the nature of things. Heracleitus is sceptical of Hesiod, Pythagoras, Xenophanes, and others who have gone before because in all the discourses he has heard "there is not one who attains understanding that wisdom is apart from all." [1] There are many apparently conflicting and independent things, there is a "strife of opposites," and there are opinions regarding all these; yet there must somehow be a One amid the Many, a

[1] Fr. 18, Bywater's arrangement, Burnet, p. 134.

harmony despite the strife, and a wisdom which discloses this unity between the two faces of the reality which rules all things in the world. As the Many had not been explained by the One, abstractly regarded, Heracleitus sought a more concrete explanatory principle in accord with the actually observed cosmos, so that the differentiation of the One into Many, and the integration of the Many into the One might be understood as an identity through differences. The strife of opposites which seemed to Anaximander to involve injustice was to Heracleitus the clue to the justice which underlies all diversity and contrast: "We must know that war is common to all and strife is justice, and that all things come into being and pass away through strife." [2]

The Perpetual Flux.—An ever-living Fire is the primary substance out of which all opposites are separated, including the real fire of sense-perception, with its incessant change yet with material supplied ever anew; with a constancy and persistence so that *all things become* in this Fire, yet all return to it. When we look at things as they merely appear, we see change only. Hence the most famous of the fragments: "You cannot step twice into the same rivers; for fresh waters are ever flowing in upon you." [3] But the perpetual flux is after all but one way of looking at the phenomenon of change. "Fire burns continuously and without interruption," and reality as a whole is like this; neither the particular nor the manifold is at rest for a moment. But there is system, order, con-

[2] (Fr. 62.)

[3] (Fr. 41.)

servation in this incessant streaming, and in this fundamental fact we possess a greater truth. "The way up and the way down is one and the same." [4] There are "measures" in the ever-living Fire, which, though always kindled and always going out, preserves its measures. These measures the sun will exceed. The sea preserves its measures. The various substances of things are inter-dependent; day and night, winter and summer, alternate; strife and harmony come and go: but there is a central correlation of opposites, including rest and change, the upward and the downward path, the wet and the dry, war and peace, good and evil. All things are known by contrast. On the surface there is endless alternation as day follows night, with conflict so obvious that it may be generalized: "War is the father of all and the king of all; and some he has made gods and some men, some bond and some free." [5] But with all this becoming, there is *a law of change* which changes not, and man should know that what is seemingly at variance "agrees with itself." Hence the deeper generalization is that there is a common or universal truth, reason (logos) through which what is real in the cosmos can be known.

The World-Reason.—By this is meant, not so-called common sense, for this is opinion merely. "The way of man has no wisdom, but that of God has." [6] By contrast, there is a Word or truth which is more than any mere exposition of it, eternal, "true evermore," in accordance with which all things come

[4] (Fr. 69.) [5] (Fr. 44.) [6] (Fr. 96.)

to pass. This Word is discoverable by a profound insight of the soul: "eyes and ears are bad witnesses to men if they have not souls that understand their language."[7] "They are estranged from that with which they have most constant intercourse." Yet there is a thought which is common to all, and those who speak with understanding must hold fast to it: "For all human laws are fed by the one divine law."[8] This one Logos or world-reason, the law of all cosmic changes, is for Heracleitus the true divine principle of the universe. There appear to be many gods, the oracle at Delphi tells about them, the Sibyl raves, uttering mirthless things; so indeed in figures of speech we celebrate heroes and discourse on war and peace. But to God "all things are fair and right," and to discern divine wisdom is to see "the thought by which all things are steered through all things," to see justice as the basis of all order, the balance which underlies all.

Ethical Doctrine.—Wisdom for man consists in conformity to the Logos or cosmic law, by distinguishing truth from opinion, what is constant from what appears. There are, for instance, illusions of the senses: eyes and ears fail us if we lack this central insight. Man is apt to be evasive: but "how can one hide from that which never sets?" Again, there are illusions in daily behavior; "it is pleasure to souls to become moist"; it is not easy to avoid the enticements of the flesh. Yet "it is not good for men to get all they wish to get." "It is hard to fight with one's

[7] (Fr. 4.) [8] (Fr. 91 b.)

heart's desire. Whatever it wishes to get, it purchases at the cost of soul."[9] What then is it to possess one's soul? What we need is moderation or wisdom. "The hidden attunement is better than the open."[10] He who is wise looks beneath all appearances, able to say of the occupations of most men, "Time is a child playing draughts." "One is ten thousand to me, if he be the best." There is a justice which overtakes those who lie and bear false witness. In the last analysis, "man's character is his fate," this fate persists, and "there awaits men when they die such things as they look not for nor dream of."[11] It would be vain to depend on the mysteries. It is vain indeed to pray to images, as if talking to a house, and no less vain to indulge in purifications: what avails is the way of God, that "way of the soul" which includes all true modes of life, deep indeed is the measure thereof. These wise utterances penetrate the Orphic doctrines to the core, and point forward to Stoicism as their fulfillment; while the doctrine of the Logos was to have profound influence even after the dawn of the Christian era.

SELECTED REFERENCES

For collateral study: Fragments, in Burnet, Fairbanks, Bakewell; brief accounts by Rogers, Weber, Thilly, Zeller; Patrick, *Heracleitus on Nature;* Bywater, *Fragments of Heracleitus.*

[9] (Fr. 105.) [10] (Fr. 47.) [11] (Fr. 122.)

§ 6. The Eleatics. Parmenides

We have seen that Xenophanes put stress on the unity of Being in contrast with various opinions about the gods, which are confessions of human relativity. But Xenophanes was a critical theologian or reformer rather than a philosopher. It was Parmenides who formulated the contrast between Being and Becoming in metaphysical terms. Metaphysics, as a theory or system of first principles, is not necessarily theistic or theological. It may not even be empirical; that is, based on observed experiences, their sequences, and implications. For metaphysics tends to be rationalistic, that is, to be based on a fundamental assumption or conception, which is developed by analysis of its implications and constructively formulated. Thus it may be very meagre, may almost wholly neglect presented fact and its bearings. Or, it may be chiefly concerned with cosmic processes, without reference to a prior first principle, assumed to account for such processes. The contrast between Being, assumed as the starting-point; and Becoming, regarded as the significant consideration, had begun to be very strongly marked because Heracleitus suggested that the essence of Being is found through study of the phenomena of change. Parmenides was the first to separate Being altogether from Becoming, in contrast with all direct efforts to account for the world. Thus metaphysics began to be abstract.

Parmenides.—Born in Elea, where he took some part in political life, and to which he contributed a

new series of laws, Parmenides (515–450 B.C.) was highly esteemed by the magistrates. He seems to have enjoyed all the advantages of his time, as a man of wealth and learning. The first thinker to expound his philosophy in metrical form, he wrote a poem *On Nature,* large fragments of which remain.[1] He is said to have visited Athens in his 65th year, accompanied by Zeno, and to have conversed with Socrates, then about 18 or 20. He was not a religious leader, not a man with a mission; but was more analytical in type, inclined to depend on his method of argument. He was doubtless influenced by Xenophanes, particularly by the objections to Pythagorean dualism; since his first interests in philosophy were aroused by contacts with Pythagoreans who converted him to a philosophical way of life. Meanwhile, as he lived in the age of Heracleitus, he would naturally raise the question, How can the ever-living Fire change into water, earth, and other things, so that it is now itself, and now it is not? How can a thing both be and not be?

The Conception of Being.—In his emphasis on Being, Parmenides carries to its fullest exent Xenophanes' conception of the One as uncreated, eternal Unity, apart from which no other reality exists: even the Many would be a sign of illusion, hence would be non-Being. There is then an eternal, indestructible, universal, immovable Ground, the ultimate Principle of all reality. For something could not have sprung from nothing, there is no doubt about it, since in doubting we would still affirm it: thought must start

[1] See Burnet, p. 172; Fairbanks, p. 87.

with it, to think at all, thought and Being are so far the same, and it would be a contradiction to deny that Being is. Since Being is, it exists absolutely, is independent, underived, continuous, complete, uncompounded. But although absolute, it is finite, in the sense of a plenum or sphere which lacks nothing. It is immovable, since there is no non-being (space) into which it could move. It is *one* because the many would imply a principle of change, and concerning change one would have "opinion" with reference to things as they appear to the senses; and in his argument for Being Parmenides is concerned with "truth" only. Furthermore, we are unable to *think* change, to follow or account for it. Being is equally real in every direction; hence what we call presence and absence, or directions with regard to given points of view, have no meaning with regard to it. Parmenides follows the logic of his argument without regard to any attempt to explain the given facts of the world. If any one insists on such facts, then there is for him the second part of Parmenides' poem, in which concessions are introduced, by way of refutation of Pythagoreanism, it may be, or possibly to show what follows if, starting with hypothetical physics, one ventures to think in terms of mere appearances. In any event, Parmenides seems to have held it necessary to "learn all things, both the abiding essence of persuasive truth, and men's opinions in which rests no true belief." [2] The "force of the argument" will not permit one to say anything by way of further explanation, since

[2] Fairbanks, p. 89.

nothing springs from Being except itself. Philosophers had been trying the other way, that is, by studying opposites, and Parmenides sees no truth lying in that direction. The prime result has sometimes been called "materialism," because Being resolves itself into physical reality occupying space to the full; others have called this doctrine idealism, because it starts and ends with thought as inseparable from Being. In any event, by putting conceptual thinking in contrast with opinion Parmenides prepares the way for consideration of the problem of knowledge, and sets the example for those who are interested to develop the logical and metaphysical implications of a given proposition.

Zeno the Eleatic.—Also a statesman of Elea, Zeno (489–430 B.C.) was about 40 years old when he visited Athens with Parmenides. He is described by Plato as tall and of a graceful appearance. Beginning as a Pythagorean, he later became a follower of Parmenides, whose philosophy he defended, not by adding any new doctrine, but by developing the method of reasoning which made him known as the inventor of dialectic, namely, through skill in showing what follows from a given assumption or postulate. Dialectic was later defined as the art of reasoning accurately, that is, *logically,* from given premises, whether or not the premises are true. But dialectic was sometimes used to show how, from a given postulate, two contradictory propositions follow. Hence it apparently discredited the implied doctrine. The term "sophistry" is ordinarily used to designate any abuse or trick of

reasoning employed as a pretence or for the sake of discrediting an adversary. As employed by the Eleatics, dialectic is an abstract mode of reasoning. By its means Zeno undertook to prove the Eleatic philosophy by showing the absurdity of the opposite of this philosophy. Zeno tried to make clear that by assuming a plurality of first principles (in contrast with the Eleatic One), or by assuming motion (in contrast with immobility) thought involves itself in contradictory propositions. Hence the famous argument to the effect that Achilles can never overtake the tortoise, and other arguments against the possibility of motion, against plurality and space, which have puzzled students of philosophy during the ages. From Zeno's point of view it would be absurd to affirm that a thing is "in" space, as if by "space" were meant something else or empty space; for this apparent something would be in something else, and so on *ad infinitum*.[3] So too motion is impossible, for there is no *place* into which Being could move. Motion as we seem to know it is not then accounted for, but Zeno could reply that it is not explained by any other philosophy. In the world of percepts, in time and space as we know them in sense-experience, the space between Achilles and the tortoise can actually be traversed in a finite time; but in the world of concepts (the world in which Zeno's dialectic moves) the space between is potentially infinite, can be indefinitely divided and subdivided, so that (theoretically) Achilles would never overtake the tortoise. Trying to con-

[3] See Burnet, p. 317.

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ceive of space, magnitude, motion, multiplicity, as such, we become involved in difficulties, and discover that none of these exists by itself. Hence it becomes clear, so Zeno contends, that only Being exists by itself, which is the point Zeno wishes to prove.

Melissus.—Melissus of Samos (440 B.C.), known in other connections as a general and politician, undertook to prove Parmenides' position by assailing the earlier cosmologies. Since Being is unoriginated, there is in reality no such process as Becoming, hence no explanation of the world is possible. If there were more than one Being, Being would not then be unlimited. Melissus advances to the position that Being is infinite in space—in contrast with the teaching of Parmenides that Being is a sphere. There is little then to be said except that, "What was was ever, and ever shall be. For if it had come into being, it needs must have been nothing before it came into being. Now, if it were nothing, in no wise could anything have arisen out of nothing. . . . Further, just as it ever is, so must it ever be infinite in magnitude. . . . So then it is eternal and infinite and one and all alike." [4]

SELECTED REFERENCES

Consult: Burnet, Chaps. IV, VIII; Fairbanks, Chaps. VI–VIII; Weber, Thilly; W. T. Stace, *A Critical History of Greek Philosophy,* 1924, Chap. IV; Gomperz, Chap. III.

[4] Fragments 1, 3, 7; Burnet, p. 321.

§ 7. Being and Becoming. Empedocles. Anaxagoras

Speculation on the ultimate nature of things readily started in Greece with the assumption of the existence of one primordial stuff out of which came all multiplicity. Philosophical thought in Ionia was concrete, it held resolutely to the study of definite physical things and undertook to explain the actual phenomena of earth and sky. But with the proposition that the One is Number, and especially the view that it is an immutable and immobile Godhead, came the conception of Being in the abstract as opposed to all change, motion, and multiplicity as appearances in the realm where opinion prevails. It has been said that Parmenides brought about a crisis by driving to its logical limit the Ionian doctrine that there is a single homogeneous substance, and by showing that this conception renders multiplicity, change, motion, and empty space unthinkable. But Heracleitus had no less insistently argued that Becoming is an ultimate problem. The aim of philosophy is to explain the actual world we know, with its prevailing oppositions, its palpable objects occupying space, its endless variety, and change. It seems plausible then to break up the unity of Being, in accord with a more natural way of thinking about Becoming in terms of the Many instead of the One. There would result the hypothesis that there are several cosmic principles or elements, each with its nature as distinctive as the "water" of Thales, the "air" of Anaximenes, or with the characteristics attributed to

"fire" by Heracleitus. The Pythagoreans had anticipated this hypothesis in a measure, and in the philosophy of Heracleitus progress had been made toward a unity of Being and Becoming. Hence the rise of *pluralism* (diversity or multiplicity of cosmic elements or principles) of several types was the natural result of reaction against the Eleatic doctrine, which was a type of *monism.*[1]

Empedocles.—First among the pluralists, Empedocles was born in Agrigentum about 490 or 495 B.C., and died, possibly as an exile in the Peloponnesus, about 435. He came from one of the leading families of his native city, was large-minded, a democratic leader of power; at one time he helped to thwart a plot, and at another refused a crown. Fragments of two of his poems are extant, *On Nature,* and the *Purifications,* a religious work.[2] Many stories gathered about his name, he is said to have worked miracles, and to have disappeared in the night at the sound of a great voice. That is, he was known from one point of view as a mystic, and credited with supernatural powers. From another, he was celebrated for his interest in medicine, and was called by Galen the founder of Italian medicine. Aristotle regarded him as the inventor of rhetoric. In religious matters he was in accord with the Orphic view of the soul as reincarnated, and looked upon man as a kind of fallen god, an exile or wanderer from the gods. His interest in

[1] Monism and pluralism as contrasted types appear and reappear throughout history.

[2] See Burnet, p. 204.

medicine was from the point of view of physiology, natural history, and experiment; through this interest his influence not only profoundly affected medicine but the history of natural science as a whole.

The Cosmic Elements.—Starting with the idea of Being as corporeal, continuous, eternal, Empedocles is concerned to account for change, multiplicity, and variety in the tangible world of things. To explain motion and diversity he divides Being into four roots or elements of reality—Fire, Air (Æther), Water, Earth—each uncreated, imperishable, in itself unmoved. These four seemed sufficient to explain all varieties of existence, on the hypothesis that, as matter is immutable in essence, while bodies are in process of change, all apparent origination or destruction is combination and separation of elements. These roots, inseparable in themselves, are mixed in spatial motion. How then did existent things assume their present forms? By means of moving powers or efficient causes distinct from the roots, which unite with one another in generation and fall asunder in death. And so comes into the field of science for the first time the conception of force in contrast with matter, in a mechanical theory of the universe.[3]

The Two Forces.—Two causes are assumed: (1) Love or Friendship, the combining power; and (2) Strife or Hatred, the separating power. Love and Hate, acting as attraction and repulsion amid the four roots, produced four continuously dissolving cosmic states: (1) the period of supremacy of Love; (2)

[3] Windelband, *His. of Anc. Phil.*, p. 75.

that of the separation of Love and Hate; (3) of absolute separation, or the rule of Hate; (4) and the period of successive recombination. Love is more than the attraction of like for like; for when the sphere of things is broken asunder by Strife, it is Love which once more unites the elements; and while Strife is the cause of destruction the separation which it brings about prepares the way for further union. There is then a cosmic process of becoming or evolution, although this is without design. Love and Strife are still corporeal. Mind is entirely dependent upon the physical substances of which it is composed, soul is not separated from body. Evolution is conceived as attaining a point where knowledge arises, so that, like knowing like, by means of effluxes or exhalations from things to the body of the percipient, man cognizes his world. "For it is by earth that we see earth, and by water water, and by air glorious air; so, too, by fire we see destroying fire, and love by love, and strife by baneful strife."[4] Man perceives everything because he is everything, has a portion of everything in himself. In thought also like knows like, desire is aroused by what is akin, aversion by what is opposed, while the qualities of thought are regulated by the state of the body, especially of the blood. It is by a combination of body-mind qualities that men feel both pleasure and pain. In both plants and animals there is an upward striving due to the desire of like to reach its like. Throughout the long processes of development by which things have come

[4] (Fr. 109.)

to assume their present forms, the four "roots of all things" have remained the same, "always alike," "equal"; since these elements are eternal, ultimate, do not pass away or mingle their being in one another. Fire evidently played a leading part in the origin of the world, but this does not imply loss of position among equals in the case of the other cosmic roots.

Love, as we have noted, is not as a cosmic force to be confused with "attraction of like for like," for Love produces an attraction of unlikes, also. Love was originally a part of the general mixture, with Strife surrounding, not as the Boundless of Anaximander encompassed the world, but as balanced by Love, occupying its proper place only in relation to the four roots. Air was the first to be separated out of the mixture, then came Earth, from which Water gushed forth, and mist by evaporation. Out of the Air the heavens were formed, out of Fire the sun, and terrestrial things in general were condensed from the other elements. Fire solidified the Air and turned it to ice. Fire was also the prime factor in causing the heavens to revolve, with the subsequent alternations of day and night. Empedocles knew that night is the conical shadow of the earth, and he was acquainted with the true theory of solar eclipses.[5] His idea of organic combinations is still crude, and in his effort to account for the development of animals he thinks in terms of heads without necks, arms without shoulders, and eyes without foreheads. But he is at least groping after an idea of the survival of the fittest as

[5] Burnet, p. 239.

persisting throughout the oppositions of Love and Strife.[6]

Conception of Man.—Many of the processes are thought out in detail, including the effort to explain the differentiation of the sexes, the development of the foetus, respiration, nutrition, and the derivation of pleasure and pain. Some progress too was made in accounting for the transition from external physical processes by means of the pores of the sense-organs, which receive the "effluxes," so that sensations of smell, sight, etc., may be understood from within. The eye consists of fire and water, and fire goes forth from within the eye to meet the emanations from surrounding objects. Empedocles keeps as close to physiological considerations as possible. Thus the chief seat of perception is found in the blood, in which the four elements are most evenly mixed; while thought is dependent on the conditions of bodily perception. The heart is the seat of intelligence, and thought and intelligence are ascribed to corporeal things in general by keeping the relationship intimate between what were later regarded as corporeal and incorporeal things. This emphasis on physical conditions is seen too in Empedocles' idea of the Godhead: it is not possible to draw nigh to the Godhead, even with the eyes or with the hands; "for he has no human head fitted to a body, nor do two shoots branch from the trunk . . . but he is sacred and ineffable mind alone, darting through the whole world with swift thoughts." Although Empedocles tends to deify the sphere, he does

[6] Fr. 134, Burnet, p. 225.

not teach unmistakably that God is one; he still speaks of the "long-lived gods" of ordinary Greek polytheism, and leaves us with the sphere-god, the created gods, the four roots and two cosmic forces. So too in adopting practical religious teachings from the Pythagoreans and the Orphics, and centering his interest upon transmigration, he does not work out a completed idea of the relation between his cosmology and his view of the soul as somehow immortal. Man as a microcosm is on the whole a mechanical product.[7] Empedocles is known as the first to formulate a doctrine of elements and forces; and by more explicitly conceiving the problem of motion, the persistence of force through successive changes, and the survival of organized results of this process, he prepared the way for a thorough-going mechanical philosophy.

Anaxagoras.—A citizen of Clazomenæ in Asia Minor, Anaxagoras (500–428 B.C.) was the first philosopher in Athens, whither he migrated about 460, at a highly favorable time, when the invasion of the Persians had passed and Athens was the leader, with Pericles supreme, and when men of eminence were invited to live there. Warmly received by Pericles, Anaxagoras was an intellectual leader for thirty years. He was distinguished as a mathematician and astronomer, and wrote a book *On Nature,* of which important fragments remain.[8] Accused of impiety by enemies

[7] Resulting from the interaction of Love and Hate operating by "necessity": in contrast with (1) interference from without, or (2) immanent causality functioning in behalf of a divine plan or world-purpose (teleology).

[8] Burnet, p. 258.

of Pericles for holding that the sun and moon were of the same stuff as the earth, he fled to Lampsacus, in Asia Minor.

Theory of Cosmic Elements.—Taking up the problem of change or becoming where Empedocles had left it, Anaxagoras departed from the notion that there are but four elements and held that there may be an infinite number, differing in quality. All the qualitative differences we find in nature are explicable by reference to a diversity of elements (spermata), infinitely small, uncreated, indestructible, absolutely unchangeable. There was no creation, there will be no passing out of being; chaos existed among the elements simply, and the whirling motion which occurred in this primitive chaos, with the separation caused by this rotation, was not due to the separation of Love and Strife, but to a single cosmic energy called Nous. This term, in later philosophy the equivalent of Mind or Thought, was used to name a more specific cosmic element endowed with the power of motion; absolutely simple, homogeneous, distinct from the other elements, which were sorted, arranged, governed, and organized according to fitness. Nous, "mixed with nothing," existing "for itself alone," "the rarest and purest of all things," had some of the attributes of a cosmic Mind, was regarded as intelligent, knowing all things past and present, possessing spontaneous activity, and yet it was still a physical force.

Nous.—Because of the power of Nous to separate the mixed elements and unite qualitatively similar particles, so that order everywhere comes into being

in the universe, there is a suggestion of design or teleology. Again, Nous seems to be immaterial, and some interpreters have translated it by the term Reason. Yet Anaxagoras' conception failed to satisfy philosophers who adopted a teleological view, and the terms "thinnest," "subtlest," "purest," hardly justify the conclusion that Nous is "spirit," as if it were wholly incorporeal. At best this philosophy is still a dualism of elements incapable of achieving order, coupled with a universal ordering principle postulated to account for the system of the universe, a principle which "owns no master but itself," is "greatest in strength," "has power over all things that have life," and "set in order all things that were to be, and that formerly were but now are not, and whatever things are now."[9] The cosmos as now existing is the result of this original disentangling and mingling according to affinities. Our earth is a cylindrical body, composed of the heaviest elements. The stars are solid masses hurled from the earth by the force of the rotation, ignited by contact; the sun is a fiery mass, and the moon borrows its light from the sun.

The question whether Mind should be regarded as immanent or transcendent, personal or impersonal, had not yet arisen. Nor had spirit been distinguished from matter. The Nous of Anaxagoras resembles the Air of Anaximenes, and is still in large measure a mechanical principle to which other attributes are assigned only so far as a mechanical conception appears to break down. Anaxagoras gave some attention to

[9] (Fr. 12.)

the problem of perception, as due to the reciprocal action of opposites, and as inferior to reason. He found the senses weak and deceitful, while the true power of understanding resides in the Nous, which as the superior of understanding, is "unmixed" with the other elements. The presented material given us by external contacts is too complex to be wholly intelligible. Somehow "what appears is a vision of the unseen," blurred so that thought must supplement it, as in proposing the theory of qualitative elements. Anaxagoras seems on the point of making the complete transition to an idealistic or teleological (purposive) philosophy, as indeed the Nous lingers between the corporeal and the incorporeal. The next step beyond his vagueness would be to identify his Nous with the World-Reason of Heracleitus, and to draw a more explicit contrast between reason and opinion. But Anaxagoras was more suggestive by virtue of what he almost said than because of his actual conception of the Nous. Meanwhile, cosmological thought was tending toward a further development of the theory of elements.

SELECTED REFERENCES

Read: Burnet, Chaps. V, VI; Fairbanks, Chaps. X, XI; Windelband, *His. of Anc. Phil.*, p. 71; Thilly, p. 30; Fuller, Chap. VII.

§ 8. Atomism. Leucippus and Democritus

Leucippus.—The founder of atomism was Leucippus, born at Abdera, in Thrace, who flourished about 420 B.C., and was probably a contemporary of Zeno the Eleatic and Anaxagoras. Nothing is known about his life. He very likely settled at Elea, where he might have heard Zeno; and he may have been influenced also by Empedocles and Anaxagoras in formulating his theory of cosmic elements. He is said to have written a book *On the Order of the Universe,* but his writings, whatever they were, seem to have been incorporated into the works of his disciple, Democritus, to whom the formulation of atomism is chiefly due.

Democritus.—Born about 460 B.C., Democritus was a citizen of the Ionian colony of Abdera, a prosperous commercial city on the Thracian coast. His father was a man of unusual wealth, and Democritus probably had an exceptional education, including travels in Greece, Egypt, and the Orient. After returning from his travels Democritus soon became known as a man of science, and later for his great work, *Diakosmos,* which was read in public and rewarded by a gift of 100 or 500 talents, and by the erection of commemorative statues. The titles of his books were arranged by a later scholar under fifteen heads, covering all branches of philosophy. The loss of his writings was probably the greatest loss of all original documents in ancient philosophy. He is said to have died cheerfully and painlessly at about 100 years of

age. Many sayings and anecdotes are connected with his name. Called by Windelband the greatest investigator of nature of antiquity,[1] he is widely regarded as having the greatest genius for knowledge of any philosopher before Aristotle. He aroused in others a zeal for research, and is reported to have said, "We should strive not after fulness of knowledge, but fulness of understanding." [2] He is said to have been in Athens without making himself known to any of the philosophers. He is not mentioned by Plato, whose view of the cosmos is radically different. Aristotle mentions him with respect, but usually to attack him. Democritus apparently did not accept the number theory of Pythagoras, but arrived at his conclusions independently. His works were written in highly developed form, and have been compared with the works of Plato.

The Cosmology of Atomism.—Whether or not Leucippus, as the pioneer of atomism, was influenced by the views of the Eleatics, he agreed with Parmenides concerning the impossibility of the genesis and decay of the world, and hence regarded Being as original, homogeneous. But to account for Becoming, Leucippus held that Being moves; it consists of innumerable, ever-living elements or atoms, each compact and full, incapable of being divided, moving in the empty space between.[3] The atoms are assumed to account not only for all change but the multiplicity,

[1] *His. of Anc. Phil.*, p. 155.
[2] Lange, *His. of Materialism*, trans., Vol. I, p. 17.
[3] See Burnet, p. 333; Lange, p. 20, foll.

variety, and form of all organized things, all differences in nature being quantitative, due to various arrangements of atoms which are all qualitatively the same. The atom as conceived by Leucippus and Democritus is not then an idealistic Number, not a mere point; it has magnitude, and is physically indivisible, not mathematically so. The atoms have both extension and weight; since they differ in shape, position, and arrangement, various combinations are possible, and visible things are aggregates of invisible atoms. Innumerable worlds are possible as results of the original "mighty void," which may have been a single vortex or whirl. Collisions occurred among the atoms, atomic groups appeared; later, moist and muddy structures; ignition and the heavenly bodies, the ignition probably being due to the swiftness of motion of atomic groups. No force, such as Love or Hate, was assumed as original sources of motion, and no arranging element, or Nous. Leucippus taught that nothing happens without a cause, i.e., nothing can come from nothing; but everything from a ground and by necessity, which, as a cause, was not a separating force required to drive elements apart, but merely the actual combination of atoms at any stage in cosmic development in question. The atoms had always been in motion, and needed no mover of any sort. Like atoms having been brought together in the vortex, the finer would naturally be forced to the circumference, the larger would tend toward the centre: the group would then be effective as a cause in relation or contact with other aggregates. The primitive motions of

atoms and groups would be chaotic, motion would be communicated by contact, and larger groups would offer greater resistance. Subsequent cosmic events would be solely due to what had gone before. Even "necessity" would then be in a way acquired, and cosmic habits would result from prior sequences.

Necessity.—Contrasting atomism with any teleological conception of the cosmos, any philosophy which sees design in nature or holds that everything exists for a preconceived end (the view approximated by Anaxagoras), we note that it is purely *mechanical,* and makes as few assumptions as possible. Starting with Leucippus' propositions concerning the atom and necessity regarded as universal, Democritus developed these into a system, conceiving of all motion, changes, events as due to mechanical operation through pressure, impact, or contact; while all properties of things are due to the form, magnitude, position, and arrangement of atoms. Previous theories to the effect that physical substance is indestructible, and that physical forces (Love and Hate, or Nous) are eternally in motion, are combined in the one view that in the atom neither substance nor force is created or destroyed, all change being due to unoriginated atomic motion. The so-called cause of cosmic events is therefore the mechanical law implied in these motions and combinations of atoms; the resulting sequences are produced, not by mere "chance," not by "design," but as inevitable consequences of what went before. Absolute chance would be utterly blind and chaotic, relative and fluctuating. A final cause would mean a moving prin-

ciple with an objective. In the original "fortuitous concatenation of atoms" there would not be law or necessity as we attribute these terms to "nature," spread marvellously before us: necessity or law would come to reign where there was contingency which could not yet be called "order," and "nature" as we know it would be a developed result, so that it is intelligible to speak of the "nature of things." We find "reason" in nature now. Primordial nature for atomism was as yet without reason.

Theory of Knowledge.—With fine consistency, Democritus applied the same principle in every field. The soul he regarded as made up of small, round, smooth, fiery atoms, those that are most perfect and mobile; the motion of these atoms permeates the whole body.[4] Perception is due to little effluences from things, these fine particles of things are constantly giving off images or representations which set up motion similar to their own. Thus like knows like. Since there is no action at a distance, these contacts are necessary to give us knowledge of things outside the body. Thought, due to the movement of little particles of matter, takes place where the fire-atoms are gathered. While the senses are the first sources of knowledge, and everything in thought has passed through the senses, so that sense-perception, in brief, is due to the massing of fiery particles, sense-knowledge alone cannot tell us what is real. Sense-knowledge would leave us with bare acquaintance, with qualitative considerations, like knowing like; hence it would leave

[4] Lange, p. 28; Windelband, p. 166.

us with appearances. But all qualities being due to quantitative arrangements of invisible atoms, sure knowledge exists for *thought*: real knowledge is knowledge of quantity. There is "deceptive cognition" and "true cognition." Some of the qualities which appear to be in things are really in us. Hence Democritus distinguishes between primary qualities (form, size, density, hardness, inertia) and secondary qualities, such as bitter and sweet, as we experience these. Thought, differing in part from perception, takes account not merely of external forms, with their properties; but of color, taste, temperature, differences in individuals, in short, the relativities and obscurities of sense-knowledge. True thought is by aid of the finest images. Hence the wisdom of some of the fragments: "Truth dwelleth in the deep," "Reality is shut out from human ken," "We perceive in fact nothing certain, but such things only as change with the state of our body, and of that which enters it, and which resists it."

Ethics.—The ethical doctrine is a logical development of the theory of knowledge. One might have expected a sensualistic doctrine from an atomist. But as Democritus finds sense-experience riddled with appearances, so he finds sensuous joys illusory. Sensual pleasure would afford only a brief satisfaction. The fine, simple motions within us give pleasure which is fairly durable. Contrasting the value of motions set up within us, one naturally seeks a balance of calm motion. The wise man seeks his ethical clues in thought, not in the senses; he seeks inner peace as his goal, turns away from violent motions. Although he

is a materialist, Democritus is also essentially a Greek, never neglecting the idea of symmetry or balance. There is no ground in his philosophy for assuming that, because the soul is a material force, therefore a low-grade life is justifiable. Democritus is interested to explain what he sees and all that he sees in the cosmos, with its system, and all that he finds in human life, with its greatest attainments. Later, the doctrine that the good is selected pleasure, and that the wise man seeks inner peace, several times reappears in Greek philosophy.

Influence of Atomism.—As a cosmic system atomism persisted with little change into modern times. It was adopted with modifications by Epicurus (341–270, B.C.), assimilated by Galileo (1564–1641), and introduced into modern physics by Gassendi (1592–1655), while Boyle introduced the conception of atoms into chemistry in 1661. It is important to note the beginnings of the problem of primary vs. secondary qualities, hence the sources of scepticism, in the philosophy of Democritus. Sensations of sound, light, heat, taste, do not appear to be really explained by the assumption of mechanical motions outside the organism corresponding with what we know as sense-perception as an inner process. To be in doubt concerning the sensations of sweetness, bitterness, warmth, cold, color, as if these did not exist, as if immediately given sensations were deceptive, is to attribute greater validity to reflection or reason. To emphasize individual differences is to plunge into the difficulties of relativism, and so to prepare the way

for Sophism. It is thus the negative side of atomism which is directly influential, while its value as a cosmic theory remained for later ages to discover.

SELECTED REFERENCES

Consult: Burnet, Chap. IX; Lange, Bk. I, Chap. I; Gomperz Bk. III, Chap. II; Bakewell, *Source Book in Ancient Phil.,* Chap. VII.

CHAPTER II

THE GREEK ENLIGHTENMENT

§ 9. Age of the Sophists. Humanism

Humanism.—The first period of Greek philosophy, although chiefly devoted to cosmic speculation, was in a measure a time of preparation for the age of enlightenment or humanism which began with the Sophists. For Pythagoras, philosophy was a way of life and his number theory implied the beginnings of ethics. Heracleitus directed attention to conduct which accords with the nature of things as disclosed by reason in contrast with popular opinion. There was little interest as yet in perception or knowledge from the point of view of inner experience, and in the main the problem was to determine the nature of the objective world, not to ascertain the nature of man. But emphasis on truth as opposed to opinion, even in the most abstract teachings of the Eleatics, already implied the question of the reality of knowledge in relation to man. While certain of the great typical conceptions of the cosmos were taking shape, the field of thought was being made ready for a study of man the individual. Moreover, when thought fails to achieve a satisfactory system, doubt concerning

speculative efforts readily leads to interest in mankind as the proper study of man. History had begun to be critical of the old myths, in the case of Herodotus and Hecatæus, who sought for real causes in contrast with evidences which would not bear the test of investigation; and in the works of Thucydides history became explicitly scientific. Various schools of physicians arose to play their part in eliminating arbitrary and superstitious elements in the knowledge of man, by showing the precise relationship of man to nature. The geographers and ethnologists were enlarging the intellectual horizon, and doing their part to increase powers of observation. Tyrants, as individuals asserting their power, aroused interest in the individual as such. Athens, which had become the centre of the Greek world, was also becoming the centre and seat of the Greek mind. It was natural for the Greek not only to regard his race as highly important, after surviving the onslaughts of the Persians, but to look upon himself as an individual, in every way as good as his neighbor; and a new literature was growing up to express this individualism. Political discussion, inquiry into the origin of law in contrast with mere custom, the search for justice, the investigation into the origin of language, and interest in the arts and education also tended toward humanism. Implied too in these intellectual changes was a new conviction of the power of reason as able to justify the principles on which society was organized, where convention and tradition had before seemed supreme. All these interests, with the increase of

curiosity, the desire to popularize knowledge, and the spread of culture in Athens disclosed opportunities for teachers who should make man their primary interest.

The Sophists.—These needs were met by the Sophists, the first travelling teachers, whose work anticipated that of the professor and prepared the way for a theory of education. The Sophists wrote little, but taught grammar, rhetoric, public-speaking, the art of persuasion, self-expression, the interpretation of poetry, the doctrines of the nature-philosophers, all with a view to practical interests in public life. They were not dependent on any institution, but taught for pay as individuals, and were the first persons in fact to rely solely upon their own efforts as educators. The term "sophist" came in time to be a term of reproach, but should be taken here in its original sense as master or teacher of practical wisdom fulfilling some of the functions of both the professor and the journalist in modern times. The Sophists belong in the history of philosophy because they express the humanistic tendency; their teachings bear on the nature of man, knowledge, truth, opinion, perception, morality. They had no common teaching, but gathered wisdom current in their age, and tended to emphasize whatever we now call psychological knowledge. Zeno the Eleatic had set the example by his use of dialectic as a mode of reasoning employed to confute an adversary. Hence the Sophists saw the value of training men to argue skilfully, that they might persuade people in terms of any assumption, on any point in

which they might be interested. In such arguments it would not be primarily a question of what is true or what is right, but of *that which meets a need* or fulfils an interest, and is temporarily or tentatively taken to be true or right because it applies to the situation. Questions concerning the nature and structure of society, how far man is enslaved, to what extent he is bound by laws derived from custom or from his own nature, could be met in this way by reducing social interests to what the individual *believes* and what the individual *wants,* or aims to achieve. If there was scepticism about theories of the ultimate nature of things, there remained a worthwhile interest in man. The authority of the gods having waned, there was a free field for individual thought in place of the myths. With the superficial, this freedom meant opportunity to believe whatever one liked, to fit the occasion, whether or not it coincided with what any one else believed. The prime result would be chaos. But the Sophists were able men who voiced the idealisms of their day, and profound interests were awakened by their teachings. This is seen in the case of the greater Sophists, despite the adverse criticisms of Plato, who took them for leading personages in his dialogues.

Protagoras.—The tale was current that once Democritus saw a porter in his native town of Abdera packing wood blocks together so ingeniously that he conversed with him, was impressed by his acuteness, and took him as his pupil.[1] This man was Protagoras

[1] Lange, p. 38.

(480–410 B.C.), first and greatest of the Sophists, whose insight led him to see the sceptical result of the teaching of Democritus that a distinction is to be drawn between qualities attributable to things outside us and other sense qualities attributable to the perceiver. This distinction readily led to the doubt whether the senses, disclosing certain qualities only, can take us beyond quality to what is quantitatively real, beyond deceptive to true cognition. Since bitter and sweet, in contrast with form, size, inertia, density, and hardness, are subjective, the field is open for the development of the subjective, with emphasis on the particulars of sense-perception. By putting emphasis on what we would call the physiological and mental differences, and the possibility of illusions of sense-perception, Protagoras acquired a leading philosophical interest: all sense-perception, hence all sense-knowledge is relative to the perceiver in the experience or process, namely, as the percipient is affected and interprets what he discerns. There appears then to be no appeal to scientific knowledge over and above individual differences.

Relativism.—Thus a new point of view is disclosed, to be reckoned with whenever philosophy undertakes to be thorough. Sensationalism or relativism in one of its forms becomes one of the theories of knowledge. Atomism as a conception of the nature of things, is put into the background for the time being. The chief interest is not in the outer world as possibly knowable by means of concepts, but in the *inner world of percepts*—any individual perceiving.

Hence Protagoras' famous saying: "Man is the measure of all things: of those that are that they are; and of those that are not that they are not." [2] The proposition, "Man is the measure of all things," is commonly taken to mean, not man in general in the sense of interest in science, but man as individual, receiving sensations, feeling, thinking, noting appearances and responding to what is given. Thus an individual at a specific moment is subject to the variations of temperature as he responds to them. Outside the individual there is the perpetual flux as interpreted by Heracleitus. Within man's experience there is another flux, changing no less surely from moment to moment; and man himself is probably in mutation. If Protagoras also taught that "contradictory assertions are equally true," the assertion just now made is the one with which the individual is concerned. The good citizen, desiring to be good, seeks what is noble; while bad and vulgar men desire and seek what is evil. What seems good to the good man, for instance, in the traditional Greek morality, is good to him, for him; hence the Sophist could disclose the values of this morality without attempting to substantiate it by appeal to a system. The "opinion" of previous philosophy now becomes the relative "truth" of the Sophists' teaching. Protagoras is reported to have said of the gods: "Of the gods I can know nothing, neither that they are nor that they are not. There is much to prevent our attaining this knowledge—the obscurity of the subject and the shortness of human

[2] Windelband, p. 118.

life." [3] This saying brought a charge of impiety on Protagoras, he was driven from Athens, and met his end by drowning while on his flight to Sicily.

Other Sophists.—Gorgias, of Leontini (483–375 B.C.), who went to Athens about 427, where he made a great impression by his eloquence and was especially known for his influence in the development of rhetorical style, was still more radical, and tended to show that every statement is equally false, hence that it cannot be known that anything exists, and even if we possessed science we could not communicate it. The teachings of Hippias of Elis, and Prodicus of Ceos were directed against the baneful effects of pleasure, in favor of the excellence of virtue. Other Sophists of fame were known for various distinctive teachings, the quality and type of the men tending to save their doctrines from a purely negative or degrading interpretation.

Estimates of Sophism.—To judge solely by the hostile criticisms of Socrates, Plato, and Aristotle, would be to overlook the important work of criticism of the Sophists which prepared the way for the more fundamental conceptions of virtue and knowledge which characterize the great systems. The Sophists made a positive contribution to philosophy by concentrating upon man, his needs, his practical life, his judgments concerning what is true or right. Hence they showed that much depends in any philosophy on

[3] This saying became in time the basis of scepticism, or systematic doubt.

our conception of human nature, on the way man knows things, the way he thinks or reasons, and his mode of assimilating tradition. It thus became clear that in some sense yet to be determined man is the measure of what he believes. But the Sophists exaggerated the difficulties and relativities, neglected the universal element of knowledge by over-emphasizing the fallacies of human reasoning. Hence the need became greater for a *science of thought,* or logic. The same is true of the ethical bearing of their work. If that is good only which the individual holds to be good for him, as he now judges, there is no ethics or moral science, no moral law, and it is once more purely a question of custom. The Sophists forced home this issue by carrying to the limit the element of subjective opinion or self-interest, and so made the need greater for Socrates as the protagonist of universal moral principles. Their reactions against the cosmologies were so sweeping that there was need for the constructive thought of Plato and Aristotle, who in turn found in sophism points for critical reaction. After the days of the Sophists there was no road back to the ancient polytheism as a serious belief. Philosophical thought had become "sophisticated," as we say, aware that human sentiments had been read into things and alleged gods, and in a measure enlightened, self-conscious, alert. For sophism shows how the mind works in arriving at its beliefs, and makes conviction far more difficult. Thus it prepares the way not only for logic and ethics but for psychology,

and, in the method and theory of knowledge, for what we now call pragmatism.[4]

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Consult: Thilly, p. 40, foll.; Windelband, *His. of Anc. Phil.,* p. 100; *His. of Phil.,* Part I, Chap. II; Gomperz, Bk. III, Chaps. V–VIII; H. Jackson, art., "Sophists," *Brittanica;* Grote, *His. of Greece, Vol. VII;* Zeller, *Phil. of the Greeks,* Vol. II; Benn, *The Greek Philosophers,* Vol. I; Bakewell, *op. cit.,* Chap. VIII.

§ 10. Socrates

Life.—Socrates, born in Athens 469 B.C., was the son of poor parents, his father a sculptor, his mother a mid-wife. Nothing is known about his early life or education, but his love of knowledge doubtless led him to take advantage of whatever opportunity was at hand. He adopted his father's occupation at first, but came to believe that he had a "divine vocation to examine himself by questioning other men." His wife, Xanthippe, was said to be cross and disagreeable, but it has been remarked that it would not be easy to live with a man who spent most of his time going about the streets of Athens, conversing. In his eager quest for knowledge, Socrates took up the habit of searching out any one who claimed to possess truth, and plying him with penetrating questions. He talked with all sorts and conditions of men in the market-place, in the gymnasia, discussing such

[4] The method of thought which judges or tests conceptions by the *results* to which they lead, or by appeal to the *things* referred to by way of description, explanation, interpretation.

topics as war, politics, marriage, friendship, love, housekeeping, poetry, the arts, trades, and sciences, especially moral questions. Interested in everything human, he cared little for nature or for speculations on the nature of things. Profoundly reflective in type, he possessed exceptional powers of concentration, and is reported to have stood upon one occasion 24 hours absorbed in thought. He is in fine the ideal representative of those who look within for truth. Subtle and keen in his searching analyses, if any one, notably a Sophist, tried to persuade him by discoursing on several subjects at once, he protested that he could not follow, and selected one topic or proposition at a time. Discerning the fallacies of those with whom he argued, he turned the conversation toward the truth of the matter, in quest of what is universal. Always good-natured and serene, and indulging in witticisms, without taking anything or anybody too seriously, he was undoubtedly an ideal man to know. Consequently, he had many friends, including some men, such as Alcibiades, who were not always in public favor. He associated at times with those who drank heavily, and attended banquets, but aways kept sober, manifesting a high degree of self-control. He was indeed a man of remarkable composure and moderation, temperate in all things. He lived a simple life, had few wants, and maintained that any one could support him. He exemplified in his own character and conduct the moral ideals in which he believed. He did not write, did not even directly teach, in the sense of propounding a system, yet he was one

of the greatest teachers of all time. He met his obligations in peace and war with the same constancy of character which he manifested in his "divine vocation," and he saved the life of one of his friends in war-time. By living a life of equanimity coupled with moral courage in meeting life's vicissitudes, he exemplified ethical insight amid realization of the realities for which it stood, and so set the standard. By doing what he believed was right regardless of any consequences likely to come upon himself, he put ethical principle above expediency.

The Charges Against Socrates.—When charged with corrupting the youth of Athens by his teaching, he met the charge quietly, stated what he knew was right and true, even though likely to be condemned for plain speaking. There was some truth in the charge that he was a religious disbeliever; the charge that he was injurious to youth was strange indeed in view of the fact that he helped men to know themselves as moral beings, and greatly quickened and inspired them; while the third charge, that he was a public nuisance, had only the fact in its support that he was a so-called "gadfly," persisting in his habit of cross-questioning men. Socrates faced his trial with the same calmness he had always shown. He was judged by 500 men, and condemned by a majority of only 3 or 30; then senteneced to drink the poison hemlock by 80 out of the 500, when he had exasperated his accusers by his defence. Condemned by his fellow-citizens on what most men would take to be false charges, he accepted the verdict quietly, spent the in-

tervening weeks conversing with his friends; and when a plan for his escape was put before him by his friends he refused to do anything to save himself, because he believed it would not be right. He had always obeyed the laws and enjoyed their benefits, and held that he should not in his old age take any advantage.

Personal Characteristics. — Socrates was described as unattractive in person, short, stocky, stout, blear-eyed, snub-nosed; with large mouth and thick lips; careless in dress; clumsy, uncouth; said to resemble a Satyr in physical make-up. Yet these peculiarities fell into the background when he spoke, with his great charm of character, and his great love of men. His life and character profoundly impressed men, so that we know what he was from the work he wrought upon diverse types, such as Xenophon and Plato. It has been noted that, a great lover of beauty, he himself was grotesque. He was at the same time a great joker, ever playful, and a great moral force, so that "his earnest things were all jests, and all his jests in earnest," a combination of characteristics which have led people to compare Lincoln with him. When he discoursed on the highest themes it was in simple fashion, starting and ending with common life. He has been described as a world man, yet he was rarely outside the walls of Athens. As a cosmopolitan, he found all human nature in a single city. Strangely enough, although he addressed not only his countrymen but all humanity, he wrote no books, but left only disciples, through whom, however, he reached mankind as almost no one has.

We have to do then not so much with a philosophy as with a philosopher, who had power to awaken men of varied types who have developed his philosophy in their own way. Through the *Apology* of Plato, confirmed by what Xenophon[1] and Aristotle tell us, we have come in a measure to separate the Socrates who thus quickened his followers from the Socrates of Plato's dialogues, in which views are sometimes advanced which were probably not held by Socrates himself.

Doctrine of Knowledge.—Socrates was not interested in theories of the world which he could not connect with the useful life, or in the gods, in ultimate speculations about deity. While nature and divine things are remote, man is accessible, and knowledge of human matters is the beginning of knowledge. Thus far Socrates agrees with the Sophists, in their strongest point. There is need then of a science of human nature culminating in an art of morals, an ethical philosophy showing what we can do and how we may most wisely live. For knowledge is valuable as a means rather than as an end. In a sense the knowledge to be sought is self-knowledge, and it is to be gained by entering deeply into one's self. But the self thus investigated is beyond the particular and the fleeting: it is the permanent substratum implied in our inner experience at its best, the source and basis of our wisdom and happiness.[2] Hence the knowledge to be gained is universal, objective, as the

[1] In the *Memorabilia.*
[2] Cf. E. Boutroux, *Historical Studies in Philos.,* trans., p. 26.

measure of truth, in contrast with opinion. This truth is to be won by sheer persistence, searching analysis, by raising objections, regarding any point in question from all sides, and by withholding assent as long as possible. Hence the interest changes from the variant beliefs which the Sophists had emphasized to quest for constant truth as universal principle implying moral law and prior to custom. Hence too it is to be the truth of many instances, as in analyzing courage, regarded from various points of approach to determine what courage is as a virtue, what its essence is, in what way it is eligible, how it is to be taken as an ideal. The result will be a *concept* of courage in contrast with particular precepts exhorting man to be courageous, courage being the permanent good, the virtue persisting through manifold instances and discerned despite conflicting appearances. The concept, as universal, is in contrast with items of sense-experience, such as a sensation of blue or of sound, the fact that an apple falls from a tree, or the fact of a passing thought, colored, it may be, by personal prejudice. Sense-experience yields only such items, but a universal is discerned through reason, as in case of the formulation of a law holding for all events of a class under identical conditions; it holds good apart from particular thoughts or any man's dictum.

Moral Science.—Hence Socrates reveres it as *over* man, fundamental, true, despite human frailties and difficulties met in arriving at truth. Men might, for example, hold different opinions concerning the

good, some deeming it pleasure, others the useful; and through ignorance of the good in its universality men might not only do wrong but inculcate faulty views. The science of human actions implied in their conduct which would be the corrective of their shortcomings should be established by means of clear and certain knowledge of a standard. Good conduct in this its true sense is out of the question save through right knowledge of the elements and principles involved. Right knowledge having been gained, right conduct will ensue as matter of course. Right action then is wisely directed action. The knowledge here in question is the strongest factor of our nature: it is he who knows what justice is who is able to be just, to do what is right. Such a man is at unity with himself, and this is a unity of knowledge as well as of virtue. The several principles involved agree with one another: this is what constitutes a science, and the verification is found by appeal to men universally, who, bearing the same principles within themselves, are able to test the reality and sufficiency of moral principles. This interest on Socrates' part is not interest in science as such, but in moral science, in the concrete universal exemplified by moral conduct at large.

The Socratic Method. — Since human nature must be known, and known thoroughly, and since men are unaware of their true nature at the outset, the Socratic method of inquiry falls into two parts: (1) an external part involving the well-known irony, jesting, dialogue, essential to the investigation because

man is to be known by conversing with him, by eliciting his opinions, comparing his propositions, disclosing contradictions, helping men to bring forth their convictions concerning piety, virtue, together with a degree of refutation intended to show up fallacious reasoning and point the way to the truth and the essence of virtue; and (2) an internal part, or the implication which involves definition, the logical or universal principle which is to be the outcome of the inductive quest. He is ready to set out in his quest who, possessing himself, loves what is best and persists in seeking it undeterred by any obstacle. The definition to be sought will be the adequate expression of the given virtue, such that its permanent significance is disclosed. It will pertain to the capacity within man to realize the standard outwardly which he discerns by analysis within his nature. Virtue as thus concretely defined involves the conviction that the power to be happy and useful resides within one's self. The goal is not absolute goodness apart from human life, as already known, but the present happiness of man; and such goodness is possible because man is able to acquire the science which is essential to it. Socrates holds that when man once sees the basis and the reasons for virtue, sees why justice is most profitable, man will do what he realizes he ought to do. Thus he emphasizes moral reason, the cognitive element, rather than the element of will; and so far as he refers to effort it is in connection with self-control and temperance as conditions for full exercise of reason. Then too it is by application of the two-fold

method referred to above that one is able to penetrate all appearances, including those which some would describe in terms of will or freedom. Socrates is an advocate of what was later called rational freedom, the response of our better nature to what we know to be right.

The Content of the Good.—Precisely what the content of the good is remains to be determined by those who apply the Socratic proposition that virtue is knowledge. The good is in general the truly useful in contrast with what is merely pleasant. It is a real as opposed to an apparent good, when, for instance, we indulge in intemperance and turn aside in pleasant paths which later prove thorny. The real good tends to stability, the achievement of the type or standard; and so it involves such matters as health and strength of body, easy domestic circumstances, family relationships, civil society, the country's prosperity, skill in one's vocation and in the management of life, obedience to the law of the land, also to the religious customs. Socrates held that as he himself had tended to lead such a life, had never willingly and knowingly done wrong, so others with such self-knowledge would pursue the good life. He also realized in large measure the ideal of freedom from circumstance. To have accepted money from his hearers, as did the Sophists, would have been to admit other men as his masters. Socrates had also shown in his mastery by walking barefoot on the ice, by standing 24 hours in meditation, enduring the unpleasantness of life at home with Xanthippe, and by his moderation at

banquets. Moreover, his experience convinced him that virtue could be taught, that is, by instruction sustained through convincing practice. His personal guidance or inner oracle was further evidence to him of the power a man possesses to live by his moral standard.[3] So too his belief in providence grew out of his experience and pointed to the continuity of the moral life. His hope of immortality was rather an anticipation of greater good carrying out the good conduct initiated here than a motive for virtue in this life. It also expressed his belief that the soul when freed from the body would attain greater intelligence. Socrates had opportunity during the month which ensued between his condemnation and the execution of his sentence to deepen his conviction that for the good man death holds no terrors. His conception of deity was in accord with the thought of providence as ruling the world through reason, in line with his practical belief in the evidences of design which his own life manifested. Plato makes him say that every blessing we enjoy is the gift of heaven. Xenophon tells us that "his belief was that the joy of the gods is greater in proportion to the holiness of the giver." He also says that Socrates prayed for what is good without specifying what the good should be, since the gods best know what is good.

Summary.—The source of his influence, in brief, lay in what he was, with "a life which had at all times been a marvel of cheerfulness and calm content," as Xenophon tells us. By living according to his doc-

[3] See Adam, *op. cit.*, p. 321.

trine, manifesting temperance, self-control, wisdom, his was a very great personal influence, profoundly impressing men of diverse types, such as Xenophon and Plato, and the founders of the Socratic schools, who in turn influenced other thinkers in the ethical period. Thus from his teaching and example moral science came into being. His teaching that knowledge is the highest good is one of the great typical conceptions of the moral life, always reappearing whenever the prevailing emphasis is rationalistic, when freedom is regarded as rational, in contrast with primary emphasis on sensibility or free-will. With his vigorous emphasis on the *universal* element in knowledge, his stress on the concept in contrast with the percept; his method of investigation, cross-questioning, and reasoning in behalf of first principles, philosophy reaches a higher level, preparatory to the differentiation of the sciences. In showing the importance of general definitions, that the essence of things might be disclosed (for instance, a given occupation, such as that of the carpenter, master of certain practical principles demanded by his art); and by his *method of inductive reasoning*, namely, from the particulars of given experience to the implied principles, formulated conceptually, his work also had the very great merit, according to Aristotle, of showing the relationship between *concepts* and *things*, instead of separating universals or definitions from the particular things which exemplify them.

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§ 11. The Socratic Schools

The Cynics.—Although Socrates taught that knowledge in the sense in which he defined it is virtue, so that no man, truly knowing what the good is, would fail to choose it, he did not make clear to all precisely what the content of the good is so that one would know in what sense it is pleasure or is attainable through discipline. According to Xenophon, Socrates in his own life placed much emphasis on discipline, superiority to hardship and labor; he also loved anything genuine, honest, sincere, and had exposed vanity, ostentation. It is this phase of his teaching which was taken up by the Cynic school, founded by Antisthenes, born in Athens about 440 or 436, died about 363 B.C., who was at first a pupil of Gorgias, but became a follower of Socrates, and, after his master's death, established a school in the gymnasium of Kynosarges, a kind of soldiers' field in Athens. The name is said to be derived from the Greek term meaning "dog," and Diogenes, the Cynic, born near the Black Sea, 412,

died about 323 B.C., spoke of himself as one of the dogs. Cynicism in extreme form was a back-to-nature movement, and found virtue to consist in discipline and abstinence. Diogenes, clad in scant attire, his beard uncut, his manners uncouth, slept in an old wine-cask, ate the coarsest food, renounced all pleasures of society, and gave up one alleged essential after another until, seeing a beggar drinking from the palm of his hand, he threw away even his drinking cup. In general, the Cynics scoffed at the refinements of society, and sought virtue for virtue's sake. Antisthenes plainly had failed to overcome the sophistic teaching which first aroused his interest in philosophy; hence he gave up the attempt to define the good in universal terms, and found it in the individual's independence of circumstance, in self-sufficiency and freedom. On its negative side, this doctrine meant indifference to property, putting aside all bondages to home, friends, town, state, country. On its positive side, because it regarded rich and poor alike as men, it led the way toward cosmopolitanism and humanitarianism, and bore fruits at a later period in Stoicism. It marked a reaction both against the pleasure-loving life of the Athenians, and against belief in the gods and supposed sacred places, in behalf of free thought; hence it tended to the abolition of all distinctions between higher and lower.

The Megarians.—The Megarian school, founded by Euclides (450–374 B.C.), united the Eleatic conception of Being, as the metaphysical basis of concepts, with the Socratic teaching that the Good is the highest

object of knowledge; and arrived at the conclusion that the Good is one, immutable. Knowledge of the Good then as the only virtue, is identical with reason, its essence consisting in its unity.[1] This doctrine does justice to the formal side only of Socrates' teaching; it overlooks individual divergences and native capacities, and excludes all particularity. But it forms a connecting link between the Eleatics and Socrates, and Plato's idealism: Plato adopts the view that the Good is immutable, metaphysical, ideal, but assigns to it a rich content assimilating the various elements in the Socratic conception.

The Cyrenaics.—Aristippus (435–360 B.C.), son of a rich merchant in the luxurious city of Cyrene, also began his philosophic activity as a Sophist. But, going to the Olympic games, he heard of Socrates, went to hear him, and, adopting the Socratic emphasis on the satisfactions of the useful life, established a school in Cyrene, after the death of Socrates. The relativism of Protagoras is apparent in Aristippus' conclusion that we know only our own states, notably those of pleasure and pain. The wisdom of life consists in organizing one's conduct so as to include as large a degree of pleasure as possible, for pleasure is the one test of that which is worth while. Since I cannot be aware of any man's pleasure save my own, wisdom leads me to pursue my own pleasure. Pleasure as I apprehend it possesses two qualities: intensity and duration, and of these, intensity of pleasure is the more secure. But momentary pleasures are apt to be elusive and fleeting;

[1] See Gomperz, *op. cit.*, Vol. II, Chap. VIII.

hence Aristippus did not limit the moral idea to intensity of present bodily pleasures to the entire exclusion of mental pleasures. Gentle motion is to be preferred to violent mental states, and a man should possess his pleasures, not be possessed by them. The art of life for which Socrates had stood is reduced by Aristippus to the winning and holding of pleasure, amid full acceptance of social life, as found, notably those joys and possessions which the Cynics had scorned. This simple hedonism or pleasure-theory passed over, with modifications into the Epicureanism of a later period. In process of change it lapsed into pessimism in the teaching of Hegesias, known as the Death-Persuader, who, doubting that pleasure can be won, argued that it was better to die. Aristippus came nearest the teaching of his master in his emphasis on prudence, and in the cheerfulness and freedom to be won by means of it. He failed to grasp the greater values of the Socratic idea of the Good, because his dependence on the sophistic theory of perception kept him from moral insight through knowledge of concepts.

CHAPTER III

THE SYSTEMATIC PHILOSOPHERS

§ 12. Plato

Life of Plato.—Plato was born in Athens or Ægina, 427 B.C., the son of Ariston, who was a descendant of Codrus, last king of Athens, and Perictione, descended from Solon. He began as a young man to manifest poetical genius, and he composed a tragedy for a public performance; meeting Socrates, he is said to have burned all his poems and dramas. He met Socrates when about 20, and remained with him 8 years, till his master's death, when his travels began, in Italy, Sicily, and Egypt. Plato records two facts only about his own life: that he was in the court during the trial of Socrates, and was one of the friends who offered security for payment of any fine that might be imposed on Socrates. His alleged absence during the death-scene in prison may have been due to illness, or the reference may be a literary touch. According to one account, he travelled during 12 years; during this period he became acquainted with Orphic and Pythagorean teachings, and increased his knowledge of politics and the arts. In the decaying Athens of his youth he had opportunity to observe the worst

features of democracy, and to note the disintegrating effects of sophism. As a relative of two of the oligarchs, he had close contact with the aristocratic party, whose views did not however wholly coincide with his own. Reacting early against existing political systems, he evidently did not care to participate in any of them, but dreamed of a better state to be built up on an ideal basis. In philosophy he was at one time a pupil of Cratylus, a follower of Heracleitus; he had opportunity to meet leading Sophists; there were two ardent Pythagoreans among the followers of Socrates; and Plato was also somewhat influenced by Euclides, who in turn had been influenced by the Eleatic school. In Syracuse he became acquainted with Dionysius, the elder, a powerful sovereign, who gave him opportunities to observe court life. But he offended that ruler by plain speaking, was sold as a slave, and rescued by friends.

Settling in Athens, in 387, at the age of 40, he began to teach philosophy, and organized his school in the northwest suburb of Athens, the name "Academy," being due, it is said, to the shrine of a local hero, Academus or Hacademus. Plato's school is naturally contrasted with a school organized by Isocrates, rhetorician and publicist, who had already gathered pupils around him, and was in some respects a rival, though chiefly interested to produce men of affairs; while Plato, not a formal lecturer, emphasized philosophy rather than general culture, and gave precedence to mathematics.[1] Students came to the Academy for ex-

[1] See A. F. Taylor, *Plato*, p. 12.

tended study with their master, who exacted no fees, and so was not professional, but stood for constancy in the pursuit of learning. In 367, Plato made a second journey to Syracuse, after the death of Dionysius, in the hope that he might carry out his plans for an ideal state, under the auspices of Dionysius II, an impressionable youth, whom Plato tried to educate: the instruction of Plato was too thorough to be pleasing, the pupil rebelled, a quarrel with Dion, brother-in-law of Dionysius I, ensued, and Plato returned to Athens, where he died, in 346 or 347. Probably Plato was never married. The headship of the Academy passed to Speusippus a nephew; while his one pupil of great genius, Aristotle, established his own school.

Plato's Type.—Plato was poet and mystic, an artist, and writer of rare excellence, as well as a philosopher, combining in unusual degree great powers of logical analysis with poetic and constructive imagination, well balanced in the life of feeling and of reason. In character he is described as noble, aristocratic in the best sense only; sympathetic with the Doric branch of the Greek race, but also an ardent admirer of the Spartans. With a rounded development of traits, keen, delighting in play, with his wit assigned to appropriate limits, he combined seriousness without being prosaic, unless it be in the last of his dialogues. Enjoying all the advantages which his time afforded, fortunate in every respect, with one of the world's masters as teacher, mythical stories readily connected him with Apollo, as the ideal man in character and personal appearance. He was the typical idealist in

his allegiance to the highest standards, with hostility to everything base, vulgar or ugly, the representative idealist of the ages, not only in philosophy but in idealisms of the state, love, friendship, education, general literature. A consummate artist in literary production, some have called him the greatest of all writers from the point of view of style; and his dialogues have never been equalled. He is said to have re-written his masterpiece, the *Republic,* eight times. His dialogues are not mere discussions of points of view, but dramas in prose; for his characters are real men, who live amid vividly described scenes. In some of them Socrates lives before us, while in others, for example, the *Parmenides,* the pursuit of truth through persistent analysis, is paramount. The greater dialogues need to be read at different times with alternative interests in mind, notably the *Republic,* not only a discussion of justice in the ideal state, an exposition of the eternal Ideas, but the first great treatise on education. Plato inspired men of genius through the ages, his influence has been far reaching; and after his time and that of his great pupil it was difficult to be original in philosophy. What one thinks of Plato is a test of one's intelligence to the limit, as we note in Emerson's estimate of him, where Emerson's own thought falls short of the Platonic system.[2] He was essentially intuitive in type, grasping the poetic, aesthetic wholeness of things and estimating them in terms of values, so that, discerning the moral excellence of Socrates, the systematic meaning of the Socratic concepts and

[2] In *Representative Men.*

methods, we have in his writings an artistic whole even when the reasoned exposition is not complete. But the detailed analysis which in the more prosaic Aristotle is typical is there, too, so that he is more than the "divine Plato," whose ideals approximate Christianity at certain points. He is a relentless critic, even of things greatly to be admired in Greece.

Works.—The writings of Plato have come down to us intact, with a collection of letters, mostly spurious, and a few dialogues rejected as not his. His dialogues show that his thought passed through periods of development, expressing Socratic, Eleatic, and Pythagorean influences, which have been interpreted by recent scholars by the changes in style, so that we now have a constructive clue to the order in which the dialogues should be read.[3] Socrates was the chief spokesman until Plato's thought had undergone too many changes, and the Athenian Stranger of his last work, the *Laws*, is a disguise for Plato himself. The leading persons represent points of view, and the whole series of discussions reveals a dialectic in the pursuit of truth. Preliminary study will naturally begin with the *Apology* and *Phædo*, in which Socrates the man chiefly figures; and systematic reading with the Socratic group of dialogues: *Apology, Hippias Minor, Charmides, Laches, Lysis, Euthyphro, Crito, Protagoras.* A second group marks a measure of change to Plato's more distinctive views and methodology: *Phædrus, Gorgias, Meno, Euthydemus, Theætetus, Sophist, Politicus, Parmenides, Cratylus.* Still later

[3] See W. Lutoslawski, *The Origin and Growth of Plato's Logic.*

come the dialogues most widely read as expositions of Plato's system: *Symposium, Phædo, Philebus, Republic, Timæus, Critias, Laws.* The classic translation is by Jowett, 5 vols., who does not arrange the dialogues in their system.

Basis of Plato's Philosophy.—Plato's extensive travels, and wide acquaintance with the teachings prevalent up to his time, suggest that with the cardinal ideas of the philosophy of the Pythagoreans, Heracleitus, the Eleatics, before him; with the negative critique of knowledge of the Sophists to stimulate his thought to reaction, what is needed is a constructive method. This Plato finds in the Socratic concept or universal, with the implied analytic and reconstitutive thinking which starts with definitions and the classification of objects according to particular qualities and essential characteristics. Sense-experience yields the particulars, items, details; but these are not sufficient to give knowledge as the term is now to be used. Nor do our experiences of any kind prove adequate, as mere experiences, fragmentary, incoherent as they are, leaving us in the sphere of the Many, when we are in quest of the One. The Sophists appear to be right as far as they went, also Aristippus in his insistence that we know only our own experiences, and the philosophers who declared that we have only "opinion" of matters in this the passing world of sense-experience. Plato is ready too to adopt the conclusion of Heracleitus that the physical world is a "flux," incessantly changing, hence that mere awareness of change is not knowledge. But instead of turning to an analysis of

the law of change as Heracleitus interprets cosmic reason or justice, Plato inclines toward the Eleatics with their conception of immutable Being, and to the clue found in the Pythagorean doctrine that things in nature imitate, partly copy Numbers, which are ideal, immaterial, in their higher aspect. The Socratic concept, as a product of reason with the moral ideal specifically in view, is not then adequate as a world-principle, but needs re-formulation as the Idea, a term which in Plato's thought takes on far-reaching meanings and values surpassing any other.

The Ideas.—The use of the capital "I" in Idea will serve to distinguish this term from "idea" used to denote a mental state or process, a particular thought, which psychology would explain by what went before in the associational activities of the mind which apprehends it. Particular thoughts indeed exemplify an Idea, as objects and events imply a law, an Idea being in brief the law or universal, which, above all given exemplifications, not dependent on them, embodies their rational meaning. Given events, acting according to such meanings, approximate the Idea as archetype or goal; but fail wherein the subject-matter of the world is too poor to reproduce the Idea in fulness, as beauty, truth, or other values which are assigned, not by our slowly plodding inferences, but by our insight. The relations or common principles in things unite them into groups—all pine trees, all horses, all soldiers, all mere Sophists—and unite these groups (signalized by the Socratic concept) so that for profound thought there is system amid them all, a cosmos

in terms of what is intelligible. The Ideas taken together constitute indeed for Plato a world by themselves, supra-sensible, immutable, invisible, eternal, the realm of Being which is untouched by what becomes or moves. While given objects, such as the forms of Sophists, seeking to show that the poor is the better reason, come and go, the Idea abides, including that element which inherently constitutes the Sophist himself.

Final Causes.—The Ideas as *essences,* whose, substance by no means depends on physical things, are realities, the true realities indeed, constituting a divine order or hierarchy which culminates in the Idea of the Good, and almost passes over into a personal conception of God.[4] God however remains identical with the Good as impersonal principle or rational ground of the intelligible world. For the cosmos is purposive, all things exist for the Good as ultimate end, allied as the Good is with the other greater Ideas, the Beautiful and the True; and it is through this bond, not by means of a divine will, that ideal realities are held together in a system. The many objects in the world of sense which copy the Ideas are far less real, although their existence has meaning with respect to their several archetypes. Objects too are said to participate in the Idea, although the extent to which participation is to be understood is difficult even for the most scholarly reader of Plato to determine. The Idea is the final cause, efficient as a drawing power lifting objects and men in aspiration, as transcendent rather than im-

[4] See Adam, *op. cit.,* p. 442.

manent in things which in a measure participate in them, separate even more than present in the particulars of sense-experience; suffering no diminution or increase, like an "abiding city," a "kingdom not to be shaken," readily interpreted in later times with respect to the "City of God." For the Idea is the complete or perfect reality, and even our current conceptions of things and events fall short.

The Ideal Standard.—The typical case is that of Beauty, which is never merely objective nor wholly subjective in the plastic and other arts, in a completed statue, musical composition, or literary product. But as a standard the Idea is objective to, it is not a "measure" of all things within the mere (Protagorean) individual, with his baffling relativities. The Idea enables us to understand, at least to interpret, as a standard of values, for example, the Idea of justice which Plato develops in the *Republic* without limiting himself to the actual achievements of men. So in a way we commune with the perfect, quickened by its ideal presence. Reason, as the eye of the soul, is aroused not alone to define and organize, but to see, in response to the Good as the cause of knowledge, as well as of Being. Thus too the soul discerns true substance. Indeed substance is attributed to the Ideas by Plato in a way that has sometimes exasperated those who seek actual explanations of the given world; he seems to attribute too great a reality to the Ideas by making them substances. Inge has well stated the fact about Plato's insight by saying that Plato *saw* his generalized Ideas, as the great sculptor sees the ideal type of beauty and copies

it in marble from the mental picture, with a vision so clear and concrete that the visible world was pale and dim by comparison.[5] Here then was a surpassing combination of poetic imagination and *amor intellectualis*, the Ideas being enriched by the joint perspective and significance of all other things beside, with the non-essential eliminated. Plato puts the Good above knowledge as the culmination of this reasoning and this seeing, because the Good is the cause, not the product of knowledge, and the dialectic process falls short before reason attains its perfect goal. Knowledge is possible too because the soul pertains to the intelligible world of the Ideas, is reminded of the Ideas when it beholds the imperfect objects of the sense-world (doctrine of reminiscence); and also dwells in the latter world, howbeit partly a prisoner in the body.

The Idea of Love.—Our relationship to the Ideas may be illustrated by love. In the *Lysis* we find Socrates willing to admit that he knows something about love, as the tendency of people to do things together, with a sense of dependence, and a delight in fair forms, as in the young and beautiful Lysis himself. Love then is mutual, of like for like, not the bad for the bad; with an implied sociality or mutual sympathy penetrating the social structure which reminds us of our incompleteness but also quickens us to attain completion. Love is the deep original prompting sending us forth into social relationships. In the *Phædrus* we have a picture of the mastery it may achieve, as the charioteer drives his horses; and in the

[5] *The Philosophy of Plotinus*, Vol. I, p. 73.

Symposium the complete conception in which love is shown to be inseparable from Beauty and the Good, in terms of the myth of two alleged parts of the human self, which, becoming separated, wandered forth in quest of each other. Thus one sees both our low estate, our needs and limitations, together with the short-comings of all things finite, and the principle which yields union; both the significance of our desires, their conflicts, the place of our lesser love (passion), and of the awakening ideal love which persists through the whole realm of our experience, branching out into love of ideal forms (Beauty as such, the universe as a whole being symbolical of a Beauty too fair to be adequately manifested), into love of wisdom (the true lover is the philosopher), and love of the Good. Love may have started as physical, as sex-love perhaps. But in time by transfer of interest to the object loved, it discerned the ideal, and so it beheld "values" at large, discerned the Ideas and their cosmos.

Plato's Ethics.—It is our sense of incompleteness which sends us forth in quest of satisfaction, so that forthwith the Good becomes our goal. Is it pleasure? No, Plato indulges in a searching critique of pleasure in the *Philebus,* and passes on in the *Republic* to analyze justice or righteousness, by first noting what it is and how it proceeds as one studies the life of a state, because justice in individuals is not so readily known. The state thus regarded is prior to the individual, who is first of all a citizen existing for the state, fitted through needs and capacities for an organic place in it. Order or social harmony is then the direct clue: the

three classes in the state, artisans, soldiers, rulers (lawmakers, philosophers) correspond to the three classes of powers in the individual, psychologically understood, the mass of desires, the spirited or volitional principle, and reason. Each man in his proper place is good; and three virtues correspond in his life as a moral being to his civic life as above outlined—the three classic or cardinal virtues, temperance, courage, and wisdom, which, taken together, constitute the organizing virtue, justice. Virtue then subsists in the right combination of qualities, with emphasis on *order* in the inner life (balance, temperance, control, adjustment), in social relationships, and as a principle which guides thought in envisaging the universe. Pleasure belongs far down in the scale. Plato, as a rationalist, assimilates the Socratic proposition that virtue is knowledge to the full, finds that *reason is power* as the controlling factor or ordering principle, yielding the *form* of virtue in both the individual and the state. Pleasure is an incentive in the sphere of beginnings: reason shows us that it is the end or goal that is significant. Knowledge is virtue, but with a rich content discovered through an evaluation of all our powers regarded in a scale, with various dependent virtues culminating in virtue itself, goodness as such: the best should lead both in us and in the state. The ideal state then can only, as political, exemplify the ideal because it is first moral, organized by the few best minds, men who, without private property or love of private gain, and sustained by the public, lead other men by sheer ability and wisdom. In the careful gradation from

lower to higher each man is to fulfil a function according to the scale of values. The aristocratic element of Plato's thought is paramount in this description above his so-called communism or socialism. Distrusting the people at large, doubtful once for all about democracy, Plato puts stress on the intelligence of the best; and he leaves the lowest class in a position of service, subject to both producers and leaders. His caste-system, unlike that of the soldier class, producers, and Brahmins in India, is not hereditary: it depends on *capacity,* and condemnation to a lower rank means inability to fill a higher function, as in our own nature lesser powers have their place. It is not a mere question whether such an ideal state can anywhere be found, whether Plato is practical in proposing such a scheme; but of the incentives which men have found to their own thinking in the history of ethics since his time, the ideal which is "laid up in heaven" to which the individual may at least conform in spirit while moving toward its realization in the slow life-round of "things as they are." [6]

The Soul.—The primary significance of the Ideas is in the truth that they constitute the ground or reason of the world, which is, in this light, rational through and through. But the Ideas, as separate, transcendent, are so far removed that the world of external things is a region apart, a realm of non-rational matter, assumed rather than accounted for by Plato, whose two worlds never seem wholly in harmony. This dualism finds expression in the conception

[6] *Republic,* IX, 592.

of the soul. On the one side, the soul contains a divine element, reason in its essence; enjoys insight at its best, is so gifted that it is a kind of guardian genius of human life; and man's duty is to lead the life of reason in fullest measure, later entering into the full heritage of immortality. On the other side, the soul is immersed in sensuous things, in the presence of dire and well-nigh irresistible passions, pleasure, rashness, fear, anger, hope which leads astray, all-daring love which confuses. Hence the soul, which might be master of its chariot (the body), is more or less submerged by irrational desires, appetitive and spirited promptings, lower impulses which are like leaden weights, which are fetters of the soul so that, in effect, the soul is indeed in a prison-house. Hence it is that philosophy is a "meditation on death," while death will come as a work of relief. The soul existed before its experiences here, as the Pythagoreans had taught, and its knowledge is partly a reminiscence of previous existences wherein there were glimpses at least of things eternal. Here in the body the soul is in contact with evil; hence the soul needs to discount what is false and weak in sense-experience, to be "gathered and concentrated within herself" by the power of reason, apprehending what is invisible, not by aid of visible things, but by intuition of the Good, so that true philosophy may lead beyond the seen to the unseen in its completeness. Indulgence in the things of the flesh would add chains to the soul: the lover of wisdom can separate his soul from communion with the body by abstaining from corporeal pleasures, by rising above distracting repre-

sentations of the senses, and seeking insight when least in bondage to the body.[7] Contemplation of Beauty is also a means of release; imaginative and artistic values yield what nowadays is called "sublimation," by aid of which the soul rises from level to level toward the freedom which was lost by assuming incarnation. Thus love idealized accomplishes a work in the realm of the sentiments which is achieved in the attendant process of conduct in its pursuit of the Good, sustained by reason in quest of the True.

Theory of Education.—Naturally Plato assigns great importance to education, insisting on careful training for citizenship, with wise bodily care, discretion in the choice of literature put in the hands of children, with music and poetry rightly added, mathematics at the proper juncture, and skilful selection at the right age of those who are to fulfil the various functions. Plato's whole life, from the time he organized the Academy, was devoted to education, and so his great influence was in the direction of his own mastery of the art he exemplified. His educational theory was an application of the many-sidedness of his own type and of the balance established by his philosophy between science and art, ethics and politics, the attainments of the inner life and their expression in a highly developed organism. The foundations of this manifoldness were to be laid in youth. Then was to come the training of the intellect in accordance with Plato's emphasis on the life of reason as a culmination. Plato gives much attention to good influences, the up-

[7] See Adam, p. 387.

lifting power of music, the contemplation of the beautiful; true representations of God as good, as never the cause of evil, never misleading man by unreal appearances or by means of such myths as even the best poets tell. The ignoble and base are to be overcome then by being anticipated, in preparation for the harmony and beauty which the soul discerns, the mind a "mansion for all lovely forms." The values of life are to be appreciated in an ascending scale, correct opinion and belief being a means to the higher discriminations of reason. Love of wisdom in the mind of the leaders of the state is to foster the cardinal virtues in noblest form, with the Idea of the Good as the central principle. Education is imperative because the soul, existing in its two worlds, needs all possible wisdom and power to overcome the darkness of its prison-house and attain the beatific vision.

Cosmology.—It has puzzled readers of Plato to know with what seriousness to take the myths put forward as an account of creation. Plato is in a way as little interested as Socrates in the world of nature, although he travelled widely, assigned great importance to mathematics and astronomy, and assimilated the Pythagorean view of the solar system. The world of Heracleitean flux is forever secondary, with opinion reigning. Yet Plato's myth of the cave discloses stages of emancipation from sheer bondage to the shadows of the sense-world, through a journey up the "rough and steep ascent" to the light of growing knowledge, and the attainment of insight. In the *Timæus* we have an account which some scholars have taken literally as

Plato's description of creation.[8] If "this or something like this is true," as Plato says elsewhere, the world is a "mixed creation," resulting from a combination of necessity and reason, while deity was inevitably hampered by the intractable nature of the world-stuff wrought into the cosmos which we behold. Deity desired that all things in the world should be as good as possible, with nothing evil, with as large a measure of the beautiful as could be, reason ruling necessity when it might, and perfection as nearly attained as unyielding material allows when the archetype so far surpasses the things which strive to reproduce it. God, "geometrizing," had perfect models: there was Number, and there were the elements to be wrought out into mathematical order, as a union between certain portions of the original stuff and the forms which were standards of creation. But if the primeval chaos submitted to a degree of such mathematical determination, so that its inherent intractability was so far overcome, there still remained an imperfection even in the most orderly of created things, so that Plato does not undertake to unify these suggestions into a science of nature. He felt the need of a World-soul as intermediate principle. The world at best is a kind of image of its Maker, a perceivable god which has been likened to Xenophanes' World-god; while the World-soul has been compared with the Logos of Heracleitus, identified in later thought with the Word, as rational and divine, immanent, and omnipresent, but immaterial. This conception of a mediating principle between the

[8] Cf. Adam, p. 356.

Good as transcendent and the generated world, visible, corporeal, tangible, therefore with attributes not to be assigned to the eternal Ground of the universe, was very generally adopted by philosophers who felt the need of allying Platonism with religion, establishing a union between Hebrew theology and Greek thought, or formulating Christianity so as to win philosophically trained men. However seriously it is to be taken as a part of Plato's system, the cosmology of the *Timæus* was profoundly influential among those who, like Plato, supplemented their knowledge or their faith when facts and precise hypotheses fell short. There seemed to be a gap between Plato's two worlds, since there was primordial "matter" or non-being assumed but not explained. So there remained problems for Aristotle and other successors who sought to establish closer relationship between the Ideas and the world, by appeal to concrete forces.

The tendency of criticism has been to put emphasis on the dualism of Plato's two worlds, without giving heed to the two-fold significance of the Ideas. The Ideas are indeed for Plato separable from concrete things inasmuch as the Ideas are not psychological, are not products of things; but are eternal truths, principles, or values discerned by insight, penetrating the universe as far as such intuition can reach. But the Ideas are also the formative principles of the world of appearances, and are therefore intimately related to the realm of Heracleitean flux. The Ideas are the interpretative principles of all reality, the true dynamic, as well as the end or goal toward which all activities

strive. For Plato what is most real and most certain is the implied ideal principle through which and for which all things exist. For him the lower is once for all to be judged by the higher. Hence he sets the standard for the idealisms or systems of values of subsequent ages, in metaphysics, in ethics, in theories of knowledge, in religion, and theology. For him certain ideal principles *have being* as objects of thought or insight, even though no sense-particulars *exist* to exemplify them. This contrast between Being and particular existences has become classic. Values have come to be regarded as having transcendental reality. Thus ethical principles have reality, even though unrealized in the actual field of moral experience: duty is an eternal ideal whether obeyed or not. So too scientific principles have become objects of pursuit in the field of scholarship. Beauty is also an eternal value. The sphere of sense-data, then, yielding subject-matter for a cosmology, is but one of several fields in which thought moves in quest of laws or principles. The world of the Ideas remains a great incentive, whatever the problems left over for those whose interest centres about the question of an immanent teleology.

The Academy.—After Plato's death his school continued for nearly 300 years, with various changes: the Older Academy, under Speusippus, Plato's nephew, Xenocrates, Polemo, and Crates; the Middle Academy, under Arcesilaus, who introduced scepticism; and the Later Academy, led by Carneades. The province of the Academy at first was to transmit the teachings of

the master, and explain the difficulties or apparent inconsistencies in his system. It was not its members but Aristotle, who, although a pupil of Plato was also his critic, undertook to modify the system to meet unsolved problems. The contrast between Plato and Aristotle, as idealists and realists, which used to be drawn, is no longer tenable. Plato's idealism was not that of Berkeley, but was a form of realism in a specific meaning of the term which the history of philosophy gradually makes clear; and Aristotle developed essentially the same philosophy, bringing to the teachings of Plato a mind of another type, interested to establish a relation between Plato's Ideas as final causes and the efficient causes which give dynamic to the world. The dualism of Plato's system impressed his great pupil. Hence Aristotle endeavored to bring the ideal forms and the unyielding "non-being" or matter into closer relation, to explain the world of sense, and formulate a science of the things which occupy space and time.

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§ 13. Aristotle

Life of Aristotle.—Aristotle was born 385 or 384 B.C., in Stagira, a provincial town on the Chalcidic peninsula; the son of Nichomacus, court physician to Amyntas II. Put in charge of a relative, Proxenus, to be educated, he was sent to Athens for his higher education, and at eighteen he entered the Academy. Little is known of his life under Plato, save that he pursued philosophy as a member of the group gathered about Plato for twenty years, and that he wrote dialogues. Not expecting to be made head of the Academy, he set forth after Plato's death (in 346) to Assos, in Asia Minor, thence to Mitylene, and then returned to Athens. While in Asia Minor, he married Pythias, a niece of his friend and fellow-student, Hermeias. In 343 he moved to the Macedonian court as tutor to Alexander, later called the Great, then a boy of thirteen. There is little reason to believe that he greatly influenced his famous pupil or that he sympathized politically with him. The murder of the king, was the occasion for calling Alexander into power, and as Aristotle's services as tutor were no longer needed, Aristotle went to Athens (336), and in 335 he founded his school of philosophy in the gymnasium dedicated to the Lycian Apollo, hence the name, Lyceum. Aristotle gave his instruction in the *peripatos* or covered portico of the gymnasium, and the school came in time to be known as the Peripatetic School. The work of the school continued during the next twelve years, in the field of speculation and research in every branch of

philosophy as developed by Aristotle, notably in the marking out of the sciences, the composition of philosophical courses and treatises, particularly in the direction of biology, and historical and political interests. The sudden death of Alexander, in 323, was followed by a period of suspicion, which included Aristotle, as Alexander's friend; and Aristotle withdrew from Athens under conditions which must have sadly broken into his life as a scholar. Aristotle was married a second time, and seems to have had a happy married life in each case. His second wife was Herpylis, by whom he left a son and daughter. His will, which fortunately was preserved, indicates features of a pleasant family life, with solicitude for the future of his children and the servants; it also indicates that he lived in comfortable circumstances. After the political trouble, which would have led to his condemnation, had he remained in Athens, Aristotle withdrew to his native region, and died the following year in Chalcis, at the age of sixty-two or sixty-three.

Character.—The busts and intaglios indicate that Aristotle's features were clear-cut and refined, expressive of great acuteness and reflective power. The anecdotes of his life which have been preserved show that he was kindly and affectionate in character. As known from his writings, he was a man of marked dignity, dispassionate, an ideal lover of truth, putting his own mind aside as much as possible, seeking facts, fond of detail, given to minute analysis, sober and resolute in judgment. He is shown too as a master of dialectic, a close observer of fine distinctions, acute as a critic of

all teachings of the philosophers; but also constructive in type, preparing the way by broad consideration of the entire field, an ardent devotee of classifications, and sacrificing literary embellishments to accuracy and brevity. Accuracy of observation in external matters was combined with widespread learning in the ascertainable political and other systems of his time, so that he sets the example for scientific research, sees the difficulties and problems, makes clear the objections. He sets the standard for a type of writing radically unlike Plato's works. His style is often dry, his statements incomplete, as if some of his works were notebooks only, intended for use in his courses of instruction; hence he is to be read slowly, with efforts to penetrate his system by grasping the principles which form the basis of all his writings, not expecting him to show enthusiasm, not even for Plato, whom he directly mentions once only. In his other writings, which have been lost, he doubtless wrote with something of the same charm which characterizes Plato's dialogues.

Method.—The "master of those who know," Aristotle accomplished a great work in differentiating the sciences, so that for ages little was added to the classification; and we still follow this classification for the most part, by further dividing the special disciplines marked out by him. Understanding the significance of the philosophical movement in Greece from its beginning, knowing the hypothesis propounded, and seeing the fundamental importance of Socrates' habit and method of defining, as well as the significance of the dialectic in Plato's dialogues, he distinguished

philosophy in general as First Philosophy (metaphysics) so as to conceive of *science as such* in terms of the care in observation required, the collection of data from varied sources, for example, his studies in the constitution of states, his natural history collections.

With him began the custom of surveying the given field of thought, the summing up of all significant points of view, in preparation for whatever one has to contribute. In creating the science of Physics, in contrast with Metaphysics, distinguishing what had been a "way of life" in previous philosophy under the head of Ethics, and separating out the implied science of thought as "analytics" (Logic), he pointed the way to specialization within a logically defined field. Thus began the habit of thinking in terms of categories or departments, according to the subject-matter and principles which appertain to the special field. Aristotle had great genius for system, for consistent use of terms from lowest to highest stages of thought, so that with him, strictly speaking, system begins. His own bent of mind, as the son of a physician, was in the direction of biology; he was the forerunner of biology and the biological point of view in general, dominant in the sciences in recent decades. His is also the typical philosophy of development, that is, a type of evolutionary theory. Modern psychology has returned to Aristotle, in appreciation of the fact that he created the science as it has stood the test of time, that is, with relation to physiological considerations and the biological point of view, supplemented in the more mod-

ern period by experimental methods. Many theories would have been unnecessary had Aristotle been better known, for example, with reference to his dependence on empirical observation, on inductive reasoning, and the intimate relationship established between conceptions (universals) and the particulars of concrete sense-experience. But if Aristotle had been better known, his name would not have been reverenced for a thousand years as a mere authority, so as to discourage further investigation, until finally the "real Aristotle" should be recovered, at the close of the scholastic period and during the Renaissance.

Writings.—Among the works attributed to Aristotle, forty treatises have been preserved, not those written in excellent literary style for popular reading, but those giving the gist of his instruction to his students and not intended for publication. The popular works, in dialogue form, discussed such subjects as justice, wealth, rhetoric, education, government. Chief among the works extant are his works on Logic: the *Organon, Categories,* the two *Analytics,* and the *Topics;* the *Metaphysics, Ethics, Politics,* his treatise *On the Soul* (*De Anima*), and *Physics.* The translation of the *Ethics* by Welldon, *On the Soul* by Wallace (Greek and English), Hicks (Greek and English), Hammond (see Introduction); and the *Metaphysics* by Ross, have made these greater works available for English readers, and have superseded the early, faulty translations.

Aristotle and Plato. — Correcting Plato and starting anew, Aristotle does not turn from nature as

if "opinion" or myth were all that could be offered. The Sophists have been refuted, the Socratic concept has been transmitted by Plato with modifications; what is needed is not sheer empiricism or naturalism, but an ideal-realism which, starting with the simplest objective facts in the given cosmos, shall ascend the scale to adequate explanation of all phenomena, with Becoming and Being, the Many leading toward the One in proper places. Endeavoring to overcome the dualism and really complete Plato's system, as he interprets it, Aristotle uses new fundamental terms to some extent, but his doctrine is still teleological, with an ideal element paramount. Aristotle maintains that while Plato sought the causes of all visible things he introduced as many other things as his philosophy tried to explain: too many Ideas, ideas of Ideas, of things here below and in the ideal world. If it be contended that things participate in or imitate Ideas, the question is, How does this process take place? To call the Ideas "patterns," or say that things participate in them, is merely to indulge in poetic symbolism. The Ideas are plainly not the causes of any motion or change in things; but it was precisely this motion or change which we sought to understand. If Ideas really were the essences of things they would be present in, not apart from them. In fine, there is no real causal efficiency, no explanation of the initiation of motion; and unless motion is explained there can be no explanation of nature. Moreover, Plato held that unity has a real existence by itself: the One regarded as the essential is always put over against the Many, as if there but one reality and

many facsimiles. It is clear that other causes are needed beside the essential and material: there must be a way to connect the two worlds of causes or essences and things. How Aristotle arrives at his central principles can best be noted by first considering his Logic.

Logical Theory.—Aristotle formulated the science of thought already implied in the art of valid thinking pursued by his predecessors. Heracleitus had pointed out that there is a "common reason" in opposition to manifold opinions dependent on sense-perception; Zeno had disclosed some of the implications of a concept, such as motion, change, and had shown how a concept could be dialectically developed to its conclusion; the sophistic movement had emphasized perceptual knowledge in contrast with mere custom or belief; Socrates had passed beyond perceptualism to the universal or concept, which he sought clearly to define, and developed the method of thought anticipated in a measure by Zeno; while Plato had put these matters in dialogue form, with a sharp antithesis between knowledge in the light of its final cause and perception in its subordinate relation to the world of perpetual flux. Aristotle singled out the implied processes and principles, the laws of thought in any science as such, in contrast with the various special interests, namely, the necessary laws of correct reasoning (dialectic), the method of arriving at truth, so that, possessing correct premises and also proceeding consistently in comparing them, one may arrive at legitimate conclusions. Knowledge is not alone of things

and events, but of what is learned from things previously known. We know things as conceivably existing in relation to our senses (not apart from them), in terms of both our particular and our universal knowledge, the prior and better known things being closer to sense-particulars, the more remote being universal. The particulars of sense-experience do not yield scientific knowledge, but leave us with items; truly to cognize a thing is to know its causes, therefore to see the necessity of its existence. Hence we need not only the sure knowledge of particulars, of what exists, the requisite data; but also that science of causes which enables us to arrive at ultimate truth. In short, there is need of the four subjects of scientific investigation: *that* a thing is, *why* a thing it, *if* it is, and *what* it is. Taking our start somewhere, with something existent, as in itself immediate or indemonstrable, we realize that Being cannot be generated; since it already *is,* as indeed are the first principles of all demonstration. Assuming that unity and magnitude exist, thought proceeds to other demonstrations on the basis of these, as in any science we start with its first principles, with a thesis. Things adopted as "first things" and indemonstrable, yield subject-matter for propositions, and so thought proceeds by means of judgments and the syllogism to truth; the thought-process is not merely formal, since universals embody references to the genuine or concrete facts of this our real world of sense-particulars which Aristotle always closely unites with his "forms" of thought. Both the particular facts and the first principles of a science are then

assumed, or thought could not proceed at all; and granted these, the central question is, What is the cause of the given existent things, so that, the middle term being supplied, these matters may be scientifically mediated? Both deductive and inductive modes of reasoning are implied, and discrimination into "categories" is called for, that is, analysis of possible assertions to be made concerning things in their relation: what a thing is, how it is constituted, how large, how related, where it is (space), when it is (time), what position it assumes, its state, what it does, and what it suffers. The way is then open for the counting, measuring, analyzing, and otherwise relating the objects of our experience as existing in time and place, so that, noting their essential qualities, accidental qualities, and their interactions, we may proceed to describe and reason about them. The significant consideration is that for Aristotle the categories are predicates of reality, so that, granted these precise relationships of things as given, that is, granted their "substance," philosophical thought can forthwith proceed with confidence in developing this central category of "substance" to the full.

Metaphysics.—Thus in the realm of Physics, which investigates nature in space and time, the "natural" is definable as that which contains the principle of change within itself, this immanent principle involves a system of ends, and nature is investigated as one might study an artist at work, the *end* of the observed process being seen from its operation or immanent motion. The growth involved in genera-

tion and decay, the changes affecting the quality of a thing, the increase and decrease which affects its quantity, all these and other forms of motion presuppose motion in space as primary, so far as Physics is concerned. But to pass from the conclusions that space and time are unthinkable without motion, that motion precedes all generation and decay, to the conception of motion as eternal and of a first cause as absolute, immovable, is to make the transition to metaphysics or First Philosophy.

The general term Form is used by Aristotle to stand for motion, purpose, in the sense of the immanent movement toward an end implying causality, this term being the corrective of Plato's "Idea." The Form is the true essence or nature of the particular thing which, by its qualities, is knowable in terms of its class, as in case of the tree, described by reference to the seed, the sapling, the full-grown tree, the fruit. A process of change is involved in this description, some kind of stuff or material undergoing progressive changes, an efficiency operating it, and a goal attained. Neither the form nor the matter can be scientifically cognized by itself. The implied principles constitute Aristotle's four causes: (1) the intrinsic element from which the thing is produced (material cause); (2) the form or model of the thing (as in producing a statue); (3) the initiating principle which produces change or rest (the efficient cause); and (4) the end or final cause which shows why it is. The form of a thing is not its mere outline or shape, that which appeals to sight or touch; but that which

also embodies its purpose. Matter, assuming different forms, and never wholly separated from it, not destroyed but persisting through its various mutations, is the possibility of all things which develop from it. It is potential, since it attains form, but originally it is as nearly formless as it can be; while in higher stages potentiality yields to actuality, there is more and more form. We behold form emerging as things develop, as they work out and realize their potentialities: the tree is not alone potential with reference to its fruit, but contains the possibility of the board, and that of the table. A man may be potentially a general or statesman. Each stage in the long process of development from lowest to highest is matter or potentiality for the one above it, the higher being the "form" of that which is lower. The whole series is *dynamic,* the idea of dynamic development from potentiality to actuality, from matter to form, being for Aristotle the interpretative principle of his whole system. The cosmos as a whole is then a *living* world-order, imbued with energy, and has come to be what we now discover it to be through long and successive stages of development.

There was of course a "first matter," at the inception of the process; but this was not "pure matter," utterly devoid of form, a plain impossibility; since it would be without the potentiality whereby things discovered have attained actuality. The lowest matter was mere material or stuff for the vegetal world, as the realization or final form of the organic; the plant-world was in turn the primal stuff of the animal world, with

its higher characteristics, including locomotion, nutrition, reproduction, sensation, and desire. Man in turn realizes the animal world in higher form, with his distinguishing quality of *reason*. Matter even in its beginnings then was the possibility of mind. The whole process is closely knit, everything in the universe is subject to the developmental order, although the process is not the same for all beings. One could not, logically speaking, penetrate back of it by simply tracing cause to prior cause; since an infinity of causes or infinite regress would mean the impossibility of science. There must be a "place to stop," implying an eternal ground or first principle, an independent final cause.

Idea of God.—First Philosophy is the science of first causes and substances, of Being rather than of quantity and quality, of the first principle of motion: Being as ultimate is one, is the ground of particulars, what we call "nature" is a special instance of these particulars in their co-ordination. The unity of the total system is constituted by the moving principle, to which there is no opposing power: the unmoved Mover (God), who is eternal; actual, not potential, hence not perishable; the cause of the primal activity of the universe; without matter, complete reality, pure Form. God as final cause then is an end in the true meaning of the term, the end for whose sake all other ends exist; the Mover who moves without being moved by being the good for which things are done, the ultimate objective *moving* other things by being loved, drawing potentiality into actuality throughout the cosmos. God as thus conceived is of course in every

sense of the word at the top of the entire developmental scale. God is not personal. God's only activity is contemplation, pure thought, a rational Being through and through; beyond our grasp or attainment, but recognizable as ultimate goal of the evolution in which we are participants, intelligible to us as the final source of our own activities. In other words, the intelligible is moved only by the intelligible, it belongs to a higher series, of which the good is a part; and we know that the good is the goal of all activity. Hence by *conception,* though not by experience, we discern the Excellent as the ideal limit whose whole life is directed toward the perfect. Hence too our thinking culminates in the conception of the supreme purpose whose reason directs all movement, whose perfection is eternal, while our anticipations of it come and go; whose happiness is complete, because, absorbed in the contemplation in which mind and its objects are one, there is no separation of intelligence from its acts. That is, as the Intelligence of all intelligence, act-in-itself, the Godhead is no less transcendent than Plato's ideal world. Therefore the same contrasts arise: matter is subordinate, unable to attain form in its purity. Moreover, matter as found in the natural world abounds in monstrosities, the irrational element which remains in part unexplained even by reference to the unmoved Mover as ground of all activity, remote indeed as the Godhead is from all evil.

Ethics.—Aristotle's ethical doctrine is a development of the same principles. Man is not morally good by nature, but every man is potentially moral with

reference to the good, although he is actuated by various impulses, irrational as well as rational, and moral goodness involves development of those potentialities which make for virtue. The good is not definable then as pleasure, as a man might naturally seek it; but defined as Happiness it is attainable through training, wisely persistent practice enforced by carefully acquired habits, the selection and co-ordination of desires, and the endeavor to realize an ideal of general well-being. Moreover, as virtue is a *mean,* manifold clues are found by putting our activities in contrast as extremes. Again, as man is by nature a social or political being, a guiding principle is found in his relation to the state. The mean, the rational or co-ordinating principle of our nature, not our sensibility, is the test of virtue; and, among things, our sensibilities are to be so trained that virtue shall become a "habit," that we may readily do what is right. Further, Aristotle's doctrine is practical, adapted to this world, in which existing states supply the field for our activity.

Aristotle is keenly aware of the difficulty involved in trying to realize Socrates' teaching that knowledge is virtue, notably in the conflict between reason and our desires; hence he takes exception to pure intellectualism and admits will as a factor in the moral scheme. Interested in the fully rounded life of the gentleman, the highly developed citizen, and the scholar, he finds a fairly long life essential, also favorable physical conditions; he is not concerned to take up the problems of persons who are unable to command these advantages, does not consider self-denial

as a possible solution. The crowning emphasis is put upon the intellectual virtues, the contemplation or life of the scholar; the civic or social virtues give place in a measure, toward the end of the *Ethics* to the virtues of the individual, whose life as Aristotle describes it reminds one of what he says in the *Metaphysics* of God. But Aristotle grants the force of the argument for pleasure, holds that pleasure is attainable, is more eligible than in the Platonic scheme; hence he keeps close to the facts as the individual may know them in ordinary life. The real point of the critique of pleasure is that though attainable pleasure should not be the *motive* of our moral activities: it is a result of virtue, and so an element in Eudaemonia (happiness), which is admittedly an attainment, is a product of reason coupled with and reacting upon our sensibility. Aristotle avoids the pure formalism of later ethical theories, and so his work has had great influence in emphasizing the importance of the content of the moral life.

Psychology.—The same principles developed in other parts of the system, show that in the study of mental life there is intimate relationship between form and matter, higher and lower. The body cannot be defined without also defining the function of the soul, and the soul in turn implies sensibility, yielding its content. All parts of the soul are prior to the body, although the matter which bodily processes supply is in a sense anterior to the soul. The subject-matter of the soul is intelligible when organized in relation to the body, the soul is the essence of the mind-body, its

form, hence its end or purpose. Our sensibility acquires its stuff from contacts with the sense-world; the desires, will, and reason are successively higher phases of the development from level to level. So too there are lower and higher unities of mental level, the unity of what Aristotle calls the "common sense," and the unity achieved by the active or creative reason on the highest plane of mentality. The psychology as a whole is strongly biological and physiological, closely related to Aristotle's theory of plant and animal life. The soul on its lowest level resembles the plant in its control of the vital functions, while on the level of animal life in general the soul possesses powers in common with the animals. The sense-organs are potentially what the perceived objects are actually. The common sense, as the central function of all the senses, is localized in the heart. Perception, imagination, and memory pertain to the body, and cease when organic life ceases. The soul, possessing both passive and active reason, is pure actuality in its active or creative phase; it existed prior to the body and its correlated mental life, and so is immaterial, imperishable. Yet as immortal it is not individual reason, but a part of the divine mind; hence there is no personal immortality, the element that survives is identified with creative reason in its universality. The problem of immortality as later propounded by those who conceived of personality in Christian terms had not yet arisen. As Aristotle's conception of God culminates in what may be called a logical pantheism, so here the soul in its highest reaches is reason in pure essence, and is

capable of making explicit the universal meaning of the world.

Theory of Knowledge.—As matter cannot be expressed in itself, but only in relation, that is, through form, so too sense-material involves not merely existent things outside of the body but a knowing subject to cognize them. Our sensibility does not know itself, what appears is apparent to a knower. Moreover, not all appearances are true, appearances alone would be purely relative, and science in its endeavors would be back where the Sophists emphasized the passing impressions of the moment. To be known in intelligible connection, things must imply the universal, a necessary principle of explanation. The universal is not a substance, as if "tree," for example, existed apart from all particular trees; the universal is a common term which serves as explanation of particulars, not separate from but immanent in the many which it explains, not abstract but concrete, discoverable by analysis of experience. To think the data of the world through to the end is to select those particulars which are significant, putting aside irrelevancies, rising from psycho-physical facts to ultimate meanings. The mind is potentially capable of conceptualizing the world, making allowances for its irrationality, and overcoming the transition from things in space and time to the realm of ideal forms wherewith the creative reason functions in fullest measure. Actively responding to the total cosmos, the soul attains true scientific or universal knowledge.

In following out this process Aristotle does not

give attention in the modern subjective sense to the change which objects apparently undergo in being unified by the "common sense" and then comprehended by creative reason. Subjective relations are not emphasized at the expense of objective, but things in space and time are regarded as possessing real relations, actually known by us. Hence his theory of knowledge is realistic, howbeit knowledge in its completion culminates in a union of creative reason with its objects of thought which closely resembles the soul's vision of the Ideas in Plato's system. Knowledge falls short when it is a question of the irrational element in brute matter, in the world as given. Again, the doctrine falls short in its endeavor to find a complete ground for the existence of such a world as ours in the divine Being. In the last analysis Aristotle must begin with the fact that the world *is*, that it possesses irrelevancies and irrationalities; that God is, that the world is moving toward God as its ideal limit; and that God is at least the ground of our rational knowledge, although we may not see how God is the ground of our total experience. The theory of knowledge passes insensibly into the metaphysics, with a view of the universe which has been characterized as midway between sheer realism and modern idealism. It is a universalism in type, remarkably compact as a system, consistently carrying out the central principles, marred only at the point where, in the absence of such discoveries as modern astronomers have made, Aristotle deviates into speculation, led by his theory that circular motion is perfect, and

therefore that the motion of the planets is circular; and by his speculations concerning the spheres and their actuating spirits, a region of thought however which confessedly moves in the category of probability only.

Politics.—In other fields of thought Aristotle is much less speculative than Plato. He made widespread studies of existing states and their constitutions in the development of his politics, a term which implies an ethical conception of the state, a theory of government and society, in application of the truth that man is a social animal. The common life, needed to sustain, secure, and complete man's physical existence, implies the mutual needs of individuals all along the line, culminating in justice. Emphasis belongs on the individual, in the family, the home, marriage, in private property, not on the community as in Plato's ideal state, the ultimate aim being the happiness of the citizens in the complete life, through education in virtue. Slavery is justified on the ground that there are men who are only capable of bodily labor, who should be ruled by others. Constitutions should be adapted to the character and requirements of the people in the given state, the model state being an aristocracy. Avoiding undue emphasis on individual differences in the case of both man and the state, Aristotle works out into a higher unity, according to his general philosophy, both individuals and the state as ends. The state as the goal of the development of human social life is prior to its parts, yet the state exists for the realization of individuals, not-

ably those of superior types, as indeed the highest constitution befits the citizens of the noblest existing state.

In the development of his philosophy of the state and education Aristotle also formulates various practical and poetic sciences, including parts of a theory of the beautiful; the *Poetics* in extant form is somewhat mutilated. Aristotle taught that what man imitates in the fine arts is not nature in its external appearance, but the inner nature of things, what ought to happen according to types or ideal forms. The artist then is the maker or producer, and art fulfils a function of "purification" of the emotions. Aristotle does not develop his philosophy in religious form, although his conception of the unmoved Mover has a certain religious value; he directs attention to natural causes, omits both the Socratic belief in providence and the idea of a future retribution, but permits religion to remain in the state with recognition of a certain measure of truth, that is, deity exists, so do the heavens and the stars, the rest being "myth."

Summary.—Aristotle clearly shows the relationship between theoretical and practical philosophy, and in his *Ethics* and *Politics* sets forth a scheme of life which he sincerely believes can actually be carried out. Hence his distinction between character in the intellectual sense and character with reference to the various tendencies or dispositions which constitute it. It is essential both to possess and be quickened by an ethical ideal, carefully thought out; and fundamentally to know one's self, what energies are active,

what tendencies need to be curbed or regulated so that virtue shall become not only a habit but a "mean" in the well-balanced life. Here as elsewhere Aristotle keeps close to the concrete, the attainable, and he is in no sense a mere dreamer. Hence the profound practical value of his ethical doctrine. But what man is as achieving self-control, balance, wisdom, by facing life as daily experience makes it known, is by no means man in isolation, given over to self-culture. Aristotle's theory of conduct includes both the individual and society, as the right ordering of life for the common welfare in the state; the political ideal is for him the ethical ideal also: it is man as a social being who is to find his place and contribute to it. There is thus a wide range of interests extending from the common occupations to the life of the scholar, which was Aristotle's own great interest. This intimate relating of the ideal and the practical, culminating in a contemplative life akin to the divine, is characteristic of his type and his philosophy. He contributes the terms, matter and form, potentiality and actuality, energy, causality, and the rest which enable thought to envisage the whole process from lower to higher so that emphasis falls on the dynamic or achieving principle. He is less great in the field of astronomy and some branches of physics. He lacks interest in mathematics, hence his scientific doctrine falls below Plato's when it is a question of geometrical relations. He also shows lack of interest in mechanical principles, and is neglectful on the whole of the teachings of Leucippus and Democritus.

Had he taken his clue in astronomy from Plato, and developed the Pythagorean conception of the planetary system, his conception of the universe would have been vastly different. The tendency of his thought was toward the development of qualitative principles, in contrast with the quantitative conceptions which modern science has found so fruitful. Mathematical physics looked back of Aristotle for its principles, esteemed Democritus above Aristotle, and substituted quantity or measurement for quality and speculation. The new astronomy of Galileo's time adopted the heliocentric (Copernican) system, and set aside forever the speculative idea of concentric spheres.

But if Aristotle's greatness in the sphere of physics and as the originator of the sciences has been at times overestimated, his work in marking off the sciences in terms of his logical theory remains secure. He contributes the biological and physiological conceptions which science is still developing to the full. He stands for the type of research which needs the experimental method for its completion. He combines the ideal with the practical, although lacking the vision which has quickened admirers of Plato. He contributes his own formulation of essentially the same philosophy, substituting the efficiency of the unmoved Mover for the Ideas. The same contrasts appear, and the judgment of history is that he leaves the same unsolved problems. His God seems too remote from the world. His conception of the soul seems too impersonal, to those who on a Christian basis of faith believe in

immortality. As "the philosopher," always tacitly referred to during many centuries, his is the philosophy to be reckoned with both in the culmination of Scholasticism and in the formulation of a new conception of the world during the Renaissance.

The Peripatetic Schools.—Aristotle's greatness in formulating the sciences, and arousing interest in collecting the requisite data to put the sciences on a secure basis, was appreciated by a group of followers, who co-operated with him in the Lyceum. Among his collaborators, one who was renowned for his learning and eloquence, Theophrastus (d. 287 B.C.), became the head of the school, which in turn divided into various branches of investigation. Theophrastus has preserved for us fragments of the early philosophers, with critical comments; and he wrote a history of the teachings of the physicists, also a work on botany. Eudemus developed the logical theory to some extent, and wrote on mathematics and astronomy; Rhodus contributed to the history of the sciences, and various phases of the Aristotelian philosophy; Aristoxenus attained renown by his *Harmonics* and other writings on music; Dicæarchus specialized in geography and politics; while other followers and their pupils became "scholarchs" and men of literature rather than philosophers. Strato, who was at the head of the school from 287 to 269, was devoted to the study of cosmology from a purely naturalistic point of view. After Lyco, leader from 269 to 226 or 224, the heads of the school transmitted its teachings rather than

adding to or modifying them, and the school gradually lost its importance.[1]

SELECTED REFERENCES

Consult: Short summaries of Aristotle's philosophy by E. Wallace, A. E. Taylor (bibliography). General works: Grote, *Aristotle;* Zeller, *Aristotle and the Earlier Peripatetics;* A. E. Taylor, *Aristotle on his Predecessors;* D. P. Chase, *Ethics of Aristotle;* Burnet, *Aristotle on Education;* Jowett, *The Politics of Aristotle;* I. Bywater, *Aristotle on the Art of Poetry;* Grant, *Aristotle;* W. D. Ross, *Aristotle,* 1924.

The *Ethics,* still the classic work on the subject, is the most readable for the beginner. The *Metaphysics* is a series of fourteen books, evidently not meant to constitute a single work, bringing together the theories of the philosophers in an analytical study of "First Philosophy." See classification of the Works, Thilly, *op cit.,* p. 77.

[1] See Gomperz, *op. cit.,* Vol. IV.

CHAPTER IV

THE ETHICAL PERIOD

§ 14. The Epicureans

The Age of Transition.—From the time of Pythagoras Greek philosophy was, as we have seen, in part a way of life. Socrates made it wholly so, by foregoing cosmological speculation and limiting his interests to wisdom in meeting life's actual situation. He was as truly a reformer as Xenophanes, but in a different way; for his mission was to set people right in their thinking about the supreme moral truths implied in their nobler pursuits. His lesser followers missed the magnitude and beauty of his thought, and interpreted the good as immutable virtue, as discipline, or as pleasure. Plato and Aristotle wrought out this greater good of which Socrates was the prophet into the full proportions of a system. For them as truly as for Socrates the good was to be found in the wise man's ideal, realized through the complete life of the individual in the state. Their systems are ethical. After their time it is the ethical element which becomes paramount, the more austere or disciplinary ideal fostered by the Cynics is developed by the Stoics, the doctrine that pleasure is the

good is enriched by the Epicureans; and in general the wise man's ideal becomes the prevailing interest through several centuries.

There are several reasons for this change. There was no one in the Academy or the Peripatetic School to compare in genius with Plato or Aristotle, and, as time went on, there were few to appreciate the greater values of the golden age of Athenian philosophy. After a period of interest in the philosophy of nature and the study of man, scepticism came in as regards ultimate problems; and when scepticism comes it is the practical motive which leads, in so far as philosophy is productive. Then too the golden age of thought was coincident with the period of national greatness and relative freedom in Greece. The balance of power had passed to Macedonia, and with the death of Alexander (323) many changes began. The passing of the political supremacy of Athens, after the Peloponnesian war, was followed by the overthrow of Corinth, the Theban war, and the fall of Sparta: Philip of Macedon, in conquering the allied Athenians and Thebans (338), had prepared the way, not for the continuance of a Grecian empire, but for the passing of political supremacy to Rome, when Greece became a Roman province (146). Revolutions came after the death of Alexander, the intrusion of foreigners, the breaking up of the established order of things, and the decay of cherished institutions. It was not a time for metaphysical advancement, or even for steady progress in the investigation of nature: it was a time for practical philosophy and religion.

With political autonomy gone, the only opportunity for mastery was in spreading abroad through the nations the achievements of Greek thought and culture, in a very different kind of conquest of the world. Greek art, literature, and learning were carried to lands which Alexander had conquered; Greek theatres, schools, and baths were established in the Orient and Egypt; and Greek customs, gods, types of thought were widely borrowed. With the passing of the Greek period proper came the Hellenic period, and the age of Hellenic-Roman philosophy. Hence we find the types of thought which were adapted to the period passing over to Rome and to Alexandria, and taking on various changes to meet other conditions. In disturbed times, moreover, men seek union with what they take to be the divine, seek freedom through inner independence, superiority to external circumstance. Hence tranquillity becomes the wise man's goal. There was a prolonged age of quest for peace in things eternal. Distrust in the constructive powers of man's reason led to emphasis on practical reason, and eventually to religious beliefs of mystical types, as the Christian era dawned. Plato and Aristotle had identified the ethical ideal with a theory of the state. But in the ethical period, leading to its religious phases, the moral life was sought *within,* apart from interest in the state, with changes of attitude which implied interest in man at large, as a cosmopolitan. Philosophy, always responding in large measure to the age in which it flourishes, gave expression to far-reaching social and political changes, during a

period of 800 years after the death of Aristotle. The Platonic philosophy had brought to the fore the quest for *values*. It was natural that values should take their clue from inward things in proportion as outward things fell into decline, and as civic duty became limited to the demands of the conquerors. And so philosophy achieved a new supremacy in the ideals of the Epicureans and Stoics.

Epicurus.—Like Zeno, the founder of Stocism, Epicurus was not a native Athenian, although he was born in Samos of Athenian parents, 341 or 342 B.C. Pamphilus the Platonist and Nausiphanes were reputed to be his teachers. The latter made him acquainted with the writings of Democritus. Epicurus first taught school in Mitylene and Lampsacus. At the age of 18 he went to Athens and founded his school of philosophy, in which he taught 36 years, living a quiet life surrounded by admiring pupils and friends, until his death, in 270. His personal influence was even greater than that of his teaching. His works, which were very numerous, included one *On Nature,* in thirty-seven books, of which only fragments remain; a summary of his system in forty-four propositions, to be committed to memory, as a catechism; treatises on various branches of philosophy, and letters, a few of the latter having been preserved. As Epicurus opposed existing doctrines and mythologies, and since his teachings were regarded as hostile to Christianity, in a later period, there was no apparent reason for preserving his writings. Among his followers was Lucretius (94–54 B.C.), whose poem

On the Nature of Things[1] put the materialism of Epicurus in classic form, made the philosophy popular among literary men and poets in the Augustan age. None of Epicurus's works contained citations from other philosophers, so far as known, not even his 37 treatises on natural philosophy. Epicurus claimed to be self-taught, beginning with his critical reactions against prevalent views when he was 14; he indulged in abusive criticisms, and his followers were known as leaders in the art of calumny. But it is also said that no leader was ever more unjustly reviled than Epicurus, a man who was known for his great cheerfulness and friendliness.[2] It is easy indeed to misjudge both the leader and the doctrine, especially when the clue is taken from the Roman period in which the doctrine became a debased sensualism. Epicurus was noble-minded, wholly serious in his pursuit of the highest good; social in type, so that friendship became the ideal in the cheerful company of men and women who gathered about him.

Basis of Epicureanism.—Epicurus was essentially practical in type. The aim of philosophy, according to him, is to promote human happiness; and speculations about the nature of things, analytic studies of any sort are valuable only so far as they disclose the true art of life. It was hardly possible to take over from the Cyrenaics the doctrine that the good is pleasure; for that doctrine had tended toward physical pleasures, it had run into pessimism, and

[1] See Lange, *op. cit.*, Chap. V.
[2] Cf. Thilly, *ibid.*, p. 97.

Plato in his *Philebus* had subjected pleasure to searching criticism. While profiting in part by Plato's rationalism, Epicurus objected to the rationalistic theory of knowledge. For him, the impressions of the senses, as directly given, are clues to reality, error (called by Plato "opinion") becomes possible when we go beyond sensation, passing wrong judgments on our mental imagery.[3] Sometimes this imagery fails correctly to reproduce objects in nature, and so thought, dependent on sensation, falls into misconception. If doubt arises we should trust sensation, which, understood, becomes the standard of truth. So in particular feelings of pleasure and pain are tests of what is real and true. The Cyrenaics failed by putting emphasis on the wrong point: intensity of pleasure leads to pain. The consequences of pleasure in the conduct of life should be taken into account. It is a question of that which is suitable for quiet life in the present, a wisely adjusted or organized life, free from fear and excitement. In other words, durability of pleasure is the test, mild pleasures involving the art of life. Obviously the pleasures of sensual enjoyment are not lasting. Freedom of the body from pain, and of the soul from annoyance are direct clues to the ideal. Quiet study of the conditions of the pleasant life enable the devotee to select those activities which make for the goal, to reject those that are not eligible. Prudence is in brief the guide. The result should be a union of bodily and mental values, that is, a union of virtues springing from prudence regarded as centrally effi-

[3] See Zeller, *Stoics, Epicureans, and Sceptics,* trans., p. 403.

cient. Thus temperance is of great importance, so is fortitude, and justice, in the sense of a mutual agreement to abstain from aggressiveness in breaking in on an individual's repose. Friendship leads very directly to happiness, notably friendship in a simple mode of life that is noble and clean.

Rules for Guidance.—There are four rules for the exaltation of pleasure in contrast with its degradation: (1) the pleasures which yield no pain are eligible; (2) pains which yield no pleasure are to be avoided; (3) pain which averts a greater pain may be chosen; (4) pleasure is to be avoided if it would involve a greater corresponding pain. In brief, even pain is to be accepted if it promises pleasure, the chief thing is the state of mind, and the application of these rules means the supremacy of eligible mental states. Hence it is that emphasis falls on freedom from outward circumstance and inner annoyance, on "imperturbability," a mental state which also received great emphasis in the Stoic doctrine.

Psychology.—Adopting the atomism of Democritus as a whole, Epicurus gave special thought to the soul as a physical substance composed of the finest atoms, diffused all through the body, endowed with extreme mobility. United with the body by close sympathy, the soul is limited and determined by this intimate relationship, and all mental phenomena are due to natural causes. The directing or rational part of the soul is located in the breast. The soul is neither incorporeal in any sense nor immortal. The control over the various activities of mind and body by which imper-

turbability is secured depends on the tone of the mind and the state of the senses. Since there is no future life, hence nothing to dread in the nether world, man should be able to rid himself of fear of death as one of the disturbers of his peace. Death being due to the cessation of sensation, in which in turn all good and evil reside, knowledge of sensation is a source of power: there is nothing to be dreaded in living, by the man who knows that there is nothing terrible in ceasing to live.

Ethical Atomism.—Epicurus rejected the teaching of Democritus concerning the direct fall of atoms, and introduced the idea of a slight deviation or swerving, not from natural necessity, but from power of self-motion in the atoms, in order to account for variations in human character and supply a basis for free-will. Without this minimum degree of spontaneity in the atoms, there would be no possibility of freedom, and without freedom there could be no responsibility. There is then an element of caprice, over against the supposed inflexibility of law: each individual thus far regulates himself, is a law unto himself. This modification of the physics of Democritus is made on purely moral grounds, for Epicurus was not interested in physical theories as such.[4] Elsewhere in the cosmos, law, that is, necessity is said to reign, and a purely mechanical cosmology suffices. The value of natural science indeed lies in its power to clear away prejudices and superstitions.[5] Thus it is important to know that

[4] For reasons, See Benn, *Greek Philosophers,* Vol. II, p. 53.
[5] Zeller, *op. cit.,* p. 445.

the soul, despite its fineness of substance and mobility, is an aggregate of atoms, so surely material that physiology yields truest knowledge of causes. One's thought need not then be qualified by the notion that a governing deity rules the world, or that there are final causes. There may indeed be gods, but in any case these beings are not what we take them to be in our fear and ignorance. The heavenly bodies were not created by the gods, and are not endowed with souls. There is in fine no reality save that of living bodily forms. If men could be set free from their fear of the gods, it did not concern Epicurus to make good the deficiencies of his doctrine. His ethical atomism was assumed, to fit the moral ideal already adopted on practical grounds. The defects of doctrine are those to be expected when there is no appreciation of scientific research, and when a refined egoism suffices. Had Epicurus advanced from social refinement and good-will toward all to real altruism, he would have felt the need of a more securely grounded science of the moral life. But Epicurus was not interested to investigate social life in its larger bearings on the community, did not look beyond the will of individuals and the useful consequences of the individual's conduct; and held that the wise man should avoid both marriage and public life, to escape from care and responsibility. Social life is conceived in terms of what was in later times called the contract-theory, that is, the so-called moral rules of life, including justice itself, are formulations of experience agreed upon in social groups. This doctrine is one of the typical ethical doctrines of

the world, and is to be appreciated in the light of its positive values rather than being judged solely by its egoism and materialism.[6]

§ 15. Stoicism

Life of Zeno, the Stoic.—Zeno, the founder of the Stoic school, was born 336 B.C., in Citium, Cyprus, a Greek city in which the population was partly Semitic, hence of a religious strain. His father was a merchant, and the son might have followed the occupation of the family had it not been for a shipwreck in which his fortune was lost. After this mishap, Zeno visited Athens, where he studied under Crates, the Cynic, Stilpo the Megarian, and Polemon of the Academy. Reacting against the radical mode of life of the Cynics, whose individualism was in striking contrast with the abstract teachings of the Megarian school, concerning the Good, and influenced also by teachings coming more directly from Socrates, through study of the writings of Xenophon and Plato, he unified the various teachings in his own way. About the year 310 he organized his school, which took its name from the Stoa Poikile (painted porch) in which he taught. Little is known of his later life or of his writings. He was highly revered for the nobility, moral earnestness, and simplicity of his life. By unusual moderation he reached an advanced age, free from disease, and put an end to his own life at what seemed the fitting time, 264 or 260 B.C.

[6] For fragments, see Bakewell, *op. cit.*, Chap. XVIII.

Other Stoic Leaders.—Cleanthes, a native of the Troad, was head of the school, 264–232; he is the reputed author of the hymn in which Stoicism is given a distinctively religious expression.[1] Chrysippus of Soli (or Tarsus), Cilicia, headed the school 232–204, and brought its teachings into completed form, defending it against the Academy and the Sceptics. Among his followers were Zeno of Tarsus, Diogenes of Babylon, and Antipater of Tarsus, teacher of Panætius, who introduced Stoicism into Rome. The Greek period of Stoicism extended from the founding of the Stoa to about 150, including a period of modification of the old Stoa, after 205; the Roman period from 150 B.C. to 200 A.D. The popular Roman Stoicism was represented by Seneca, Epictetus, during the first century A.D., and the Emperor Marcus Aurelius. Panætius and Posidonius of Apamea are known as the teachers of Cicero and Pompey. Stoicism was readily accepted by the Cæsars, Cicero, Cato, and other Romans; and in the writings of Cicero, Epictetus and Marcus Aurelius it received classic expression, with an influence second only to that of Christianity. Our knowledge of Stoicism is also due to Diogenes Laertius, Stobæus, Plutarch, Simplicius, and Sextus Empiricus. Collections of fragments have been handed down.

Basis of Stoicism.—Stoicism in its scientific form was mainly the work of Zeno and Chrysippus, who unified and defined the system as a whole. It met in

[1] For trans., see Bakewell, p. 277; Hicks, *Stoic and Epicurean*, p. 14.

part the needs of a philosophy of nature, of ethics, and religion. Like Epicureanism, it is practical, since philosophy is pursued for the sake of its bearings on life. But it was divided into Logic, Physics, and Ethics, and intended to be a complete philosophy. Hence the ethical teachings of the Cynics are not only enlarged and corrected by a return to Socrates, whose moral doctrine the Stoics believed themselves faithfully to represent; but, profiting by criticisms of Plato and Aristotle, the Stoics went back to Heracleitus for their cosmology. Heracleitus had taught that all individuals are embodiments of the ever-living Fire; and that there is one law (Logos, Word) which governs world-processes and men, and so yields a conception not only of justice but of wise adjustment to the cosmic order of things. It is important from the Stoic point of view to have a secure basis for theoretical virtue; hence logic, with its metaphysical implications, bears direct relation to philosophy as a way of life. To secure a sound theoretical basis for ethics, it is necessary to possess a criterion of truth and a theory of the universe.

Logic.—Zeno is reputed to be the first to use the term logic, as the science of thoughts and discourses, that is, of concepts, judgments, inferences, and the expression of these in systematic form, including grammar (founded as a science by the Stoics). The main interest for us is not in the technical modifications of Aristotle's logic, but in the theory of knowledge. The Stoics rejected Plato's theory of separate Ideas, innate in the soul; and regarded the soul as an

empty tablet at birth, all its concepts or universals being due to impressions from without, caused by bodily relationship to external things. Sensation is like an impression produced by a seal upon wax. The impressions made by objects are later revived, the imagination plays its part in these persistent memory-images, the revived impressions combine to form sense-perception as a representation of objects; thus knowledge of things is based on resemblances, not on what the soul in the guise of reason contributes. The soul is passive in the process. All conceptions are due to sense-impressions, irresistible impressions producing our convictions, while the general assemblage of memories constitutes experience.

All knowledge then is originally empirical. Some ideas are merely faded impressions. Concepts are not wholly due to the spontaneous fusion of impressions into general notions, for they are also formed by the process of reflection in which the mind notes resemblances and analogies when comparing and combining representations. Sensations and images combine to produce "common notions," while departures from the standard yielded by sense-perception, that is, illusions or errors, are to be detected by comparison between conceptions and things. Sense-knowledge belongs under four categories (substantiality, quality, mode of being, relation); an idea is true if it is an exact reproduction of the object it represents, and vividness or clearness of sense-impressions is the test in contrast with feintness. Hence the importance of making our ideas as clear and distinct as possible. Knowledge

passes through four stages: presentation, assent, apprehension, and understanding (comprehension, science). We arrive at conviction by giving assent to irresistible perceptions taken up in the form of representations which are not to be denied. This process on its higher side bears relation to universal reason, the law or principle of the entire cosmos. Thus while our concepts are merely ideas in our own minds, not entities in themselves, they do indeed pertain to reality in the universe, truth is possible, the human mind can reproduce divine principles. Much depends then on concepts to which we give profound assent, on self-evidence in highest form. Reasoned knowledge takes us beyond the mere combining of common notions to organized ideas which withstand severe tests. Hence the importance of examining the various stages of knowledge in its advance toward philosophic truth.

Physics.—In their physics or natural philosophy the Stoics undertake to overcome the dualism of Plato and Aristotle by developing the cosmology of Heracleitus. At the origins of things in the ordered world is the divine Fire, which, permeating the lower elements (air, water, and earth) wrought things and beings into their existent forms, from the inorganic to the organic, the apparently blind to the purposive. There is a single stuff or matter-energy out of which all things have been developed, but a stuff which has two aspects, mind and body being essentially one organism with two phases. Every product of the cosmic process capable of action, including man in highest estate, is corporeal; reality pertains solely to

material objects, even the soul is material. As the soul consists of a finer form of material substance, as the psychic side of the body, so there is a soul of the world, God or the World-reason. From one point of view the universe in space and time, with its long cosmic cycles repeating in manifestation the same principles, may be described as a physical unity or system; from another it is Zeus (addressed by Cleanthes in his hymn), Fate, Fire, or Spirit, so that physics passes over into pantheistic theology. As all is determined by necessary processes in the cosmos, objectively regarded, so that Fate everywhere rules; so in the life of man all is fate, there is no freedom, even the will being determined by the causal chain. Nothing happens by chance in either series, although man may give "assent" to what fate has decreed, so that he at least appears to obey.

The Dynamic Principle.—This world-view is not, however, mechanical, but is best describable as dynamic, with emphasis on force (the ever-living Fire) rather than on matter, and with a teleological emphasis. For the universe is a purposeful rational order, with a divine government, its highest phase being Providence, whose law is the clue to human existence in its rationality. The universe is not alone physical, but also moral: the cosmic and the moral coincide in one world-embodying purpose, the law revered by man in his natural science being that which he *ought* to obey as the basis of his ethics. The lower life of sense-impulse, emotion, unreason (the irrational element in the philosophy of Plato and Aristotle), through lack of control, or unwise assent, gives rise to the undesir-

able tendencies of common experience. It is the higher life of *reason* which discloses the divine principle in nature and man. Zeller regards the materialism of the Stoics as a natural result of their common-sense view of existence, and their desire to find a firm basis for human action: it is through action that men are brought in direct contact with external objects. Hence emphasis falls on the dynamic character of the universe, on activity, force, or spirit. All causes are active, efficient, immanent, not separated like the Nous of Anaxagoras or the unmoved Mover of Aristotle.

Pantheism.—The pantheism is a rational pantheism in which the Heracleitean "common reason" or Logos is attributed to the cosmos itself instead of being made transcendent. The idea of pure Spirit is not needed. The Stoics readily pass from Fire, ether, air, atmospheric current, as containing the germs of things, as the connecting or unifying element akin to Spirit, to the law or fiery reason implied in this connecting principle; thence to the idea of destiny or providence, as perfect, happy, ever-kind, all-knowing; and so to Zeus as the whole of the world, or Providence as the inner point of view. God has reality because invested with material form. He is immediate to us through love, governs our destinies for our good. All alleged gods are the one true God, different names are due to various approaches, different religions being acceptable because their object is the same. This liberalism seems for the moment to be purely impersonal, but God is revered as a religious object with respect for human personality and almost becomes a

Person. It is the divine in nature which gives the Stoic his central inspiration, so that, turning to moral considerations, he has a firm basis for duty. The Stoics gave some consideration to the existence of evil, but found it to be relative, like shadows or contrasts which show the superiority of light: justice and the other virtues are esteemed by our struggles toward them, the discords somehow being essential to the harmony of the whole. The theology of the Stoics has been called a compromise between pantheism and theism, but the Stoics were not troubled by compromises. In their theory of knowledge they passed readily from the conclusion that vivid individual impressions are alone true to the conclusion that there is a higher truth than sense-impressionism, arrived at through a judgment which finds its test in conformity to cosmic-moral reason.

Ethics.—It is this higher type of knowledge which points the way to the wise man's ideal. The significant thing about our experience is the norm or law to which our conduct not only may but ought to conform. True thought (reason), disclosing the divine purpose in things, also makes known our duty, the law to which we find ourselves really subject in contrast with the appearances of things when we give attention to sensuous inclination. Reason reveals the organic relatedness of the parts to the whole, in which all things work together for good, according to the divine ideal. As there is a ruling principle in the cosmos, so there is a ruling principle in man's own nature. This governing principle has indeed a lowly

origin, situated as it is in the heart, manifested in mental functions in general. But its development frees us from mere dependence on impulses and images, lifts us to the level of deliberation, and gives freedom to think and act according to reason, in obedience to the cosmic law. Man possesses this power because he is a spark of the divine Fire. Perfect acquiescence in the rule of providence, full acceptance of universal law is the one great virtue. The ideal of the wise man is to put his own inner life in order, with reason governing, so that his own selfhood shall not be in any sense an obstacle. In terms a Christian would employ, this means adjusting our own will to the will of the universe, losing the lower to find the higher. But the ideal calls for submission rather than sacrifice.

Duty and Virtue.—It would not be just to call this doctrine fatalism; for objects in the inorganic and lower organic worlds obey nature of necessity simply, while man, possessing the same reason in himself which the universe embodies in its diviner aspect, is able to enter consciously into the process of adjustment, overcoming what is relatively hostile, what is indifferent and disturbing. The moral life does not consist in mere contemplation of universal law or deity, but in active co-operation so that "life according to nature" shall become a realized ideal. The Stoic gave himself in genuine zeal to his motto, virtue for virtue's sake; and so, for the first time in the history of ethical thought in the Western world, gave precedence to the idea of *duty* as of value in itself. Virtue as thus sought, disinterestedly, is not only the supreme goal;

it is the only basis or source of happiness. It springs from what Zeno called the consistent life, which is more an attitude or disposition of the soul than any kind of external conduct. As it manifests in its fulness the larger or rational selfhood of man, it is self-realization. It is one in essence in all upright men, therefore the source of the specific or cardinal virtues, temperance, courage, wisdom, and justice. Virtue being the only good, alleged goods, such as riches, pleasure, health, honors, are good as means only, that is, these are matters of indifference in themselves. Vice, the opposite of virtue, is the only evil; death, disease, disgrace, poverty, are not evils as such, but are to be understood as parts of a life contrary to nature. Sin then is possible in a relative way, as an expression of impotence or attempted life contrary to nature, not a real fact in the true cosmos.

Self-control.—Hence it is that no real harm can come to the wise man, there is nothing really to fear. Such matters as poverty and wealth come and go, leaving us as we were. Everything depends on the use to which we put our powers, as tending toward either righteousness or sin. In his false judgments man might indeed respond to fear, grief, desire, or pleasure. It is important therefore to understand the passions and emotions in the light of their causes. These diseases of the soul can be overcome, are overcome in the life of the wise man, who, therefore, is the free man, victorious over himself and the world. Superior to inner disturbances of all sorts, especially disturbing emotions, possessing "apathy" in its truest estate, he is

at peace, facing the world with that equanimity which is strength. It is within man's power to master inner states which disturb and all matters that are "indifferent," and in developing this part of his practical philosophy the Stoic speaks as if man possessed free-will. What is meant, however, is power given man by his own higher nature to pass beyond native tendencies to virtue as an attainment consciously made by overcoming the obstacles of his lesser nature. Virtue, in brief, is acquired by practice, guided by true knowledge. Through its attainment reason in man becomes triumphant over every opposing tendency.

Law.—This does not mean freedom or equanimity in the sense of self-centeredness; for man's impulse is not only toward self-preservation but is eminently social. Hence the well-known Stoic emphasis on natural rights and law, with the contributions toward the conceptions of civil and moral law made by the Roman Stoics. Revering law as exemplified in the universe, as followers of Heracleitus, the Stoics signalized law everywhere in human life, with its culmination in righteousness or justice. The ideal of the wise man is to make his whole life an embodiment of law, or duty realized. But the ideal, realized, includes all men in a cosmos of moral beings toward whom each of us has his duties. One right, one law ought then to unite us in an ideal state characterized by the supremacy of universal reason. Particular states fall into the background, as do national differences, and various types of religion. Since all men are our brothers, with one law over all, it is a question of universal welfare,

the problems and needs of men concern us all; philanthropy or humanitarianism is a logical carrying out of the Stoic principles. The Stoic therefore parts company with the Cynic, who scorns the world, and with the Epicurean, who absents himself from it in order to gain happiness. Fulness of life comes with participation in political affairs, but as a citizen of the world, not as a partisan; both friendship and marriage are eligible, any form of social life in fact in which man, as a true moral individual, can relate himself to universal reason. Such a life includes a large measure of tolerance for existing forms of religion, shorn of superstition, imbued with true piety, pointing forward to adjustment to the rational universe. The Stoics were tolerant too of belief in the gods; since as leaders in liberalism they advocated allegorical interpretations, and so set the example for subsequent generations. Their breadth of thought covered what have been called their "superb paradoxes": materialism and spiritualism; adjustment to nature and self-sufficiency (or Cynic independence of nature); fatalism and duty; pantheism and the acceptance of popular religions implying radically different conceptions, theistic, as well as pantheistic.

Influence of Stoicism.—The Stoics have been universally admired, profoundly influential, and in large measure accepted as the typical philosophers of all time. Through their inconsistencies, partly due to the fact that their teachings were contributed by various individuals during a long period, one attitude or spirit prevails, a spirit which has won theists and

believers in free-will, and has greatly impressed those who have seen in Stoicism at its best an approximation to Christianity. It is a misconception to identify the Stoic ideal with "emancipation" from all moral law, to connect it with Oriental ideas of emanation of the soul from God and its final absorption in God, or to reduce its moral ideal to fatalism. In later times Stoicism was less noble, and to be stoical was not necessarily to be a philosopher. But the doctrine is not to be judged by the lapses of those who grasped it only in part. The positive contribution of Stoicism was due to the one great desire to "give unity to man's life, a unity which nothing that can come from without can disturb" (Caird). Hence the world itself is conceived as a unity, the insistence on a rational principle in the world is more significant than the materialism, and the qualification in favor of a spiritual element of greater moment than the inconsistencies. Again, in the ideal of a "rationally guided consistency in the conduct of life," in the Stoic emphasis on duty, recognition is given in full to a higher order, hence to a gradation of duties, and a profound sense of responsibility.[2] The ideal of "justice and the universal love of man" is thus brought to the fore, and is applied even to the lowest members of society, the slaves. So the "intrinsic worth of human personality, the overcoming of the world in man's overcoming himself" is the paramount consideration in this "ripest and highest contribution of the ethical life of antiquity."

[2] Windelband, *His. of Phil.*, p. 172. See, also, Caird, *op. cit.*, Vol. II, p. 82.

Roman Stoicism.—Panætius (180–111 B.C.) introduced to the Stoic philosophy by Diogenes of Seleucia and Antipater of Tarsus, was the founder of Roman Stoicism.[3] Seeking to make Stoicism more attractive, Panætius chiefly emphasized its practical side. He distinguished between the theoretical and the practical virtues, and modified the asperities of the ethical doctrine in general. He also combated all forms of divination, rejected soothsaying, implanted a purer idea of religion, and abandoned the idea of the destruction of the world by fire. He admired most of the early great philosophers, and with him began the tendency of Stoicism toward eclecticism. His work on *Duty* gave Cicero the basis for his *De Officiis*. Seneca (3 B.C.–65 A.D.) also emphasized the practical values, and the moral and spiritual side of the idea of God, the divine care for man, the divine goodness and wisdom. Human reason is an effluence of deity. The flesh, with its tendencies toward vice, its opposition to the spirit, is the "husk" of the personality, which in turn is a plurality of rational and irrational elements. As the tendency toward evil in mankind is strong, there is need of severe self-discipline: happiness is to be found only within. Seneca gave prominence to philanthropic virtues, the universal love for mankind; and the need of divine help in overcoming human imperfections: the unity of the divine nature takes the place of the plurality of gods.

Epictetus.—Musonius Rufus attained prominence as a teacher at Rome in the time of Nero. His

[3] Zeller, *His. of Eclecticism*, trans. by Alleyne, 1883, p. 39.

pupil, Epictetus, who was at first a slave, went to Nicopolis in Epirus, 94 A.D., when Domitian banished all philosophers from Rome.[4] Epictetus held that the universal moral principles are innate in all men, and that there is agreement among all, the province of philosophy being to develop these native principles. Hence much depends on the implications of our immediate consciousness. The central ideas are: belief in the deity and his care for men; in the rationality of the universe and its course; and kinship between the human spirit and the divine. Since the right tendencies are implanted in our nature, there is less need of an elaborate philosophy. The great need is: the attainment of happiness by limiting ourselves to our moral nature, by renouncing all appetites and wishes which bind us to external things; and by discriminating between what is in our power and what is not. What is in our power is *will,* the use of our ideas. We should bear all external events with unconditional submission, and be free from matters that are indifferent, those which do not contribute to our happiness. In this disregard of externals Epictetus approaches Cynicism, and describes the true philosopher as a Cynic. Resignation to the unavoidable is of the first moment. By dwelling on the things which are in our power we can keep ourselves cheerful.

Marcus Aurelius.—Marcus Aurelius (121–180) followed Epictetus in passing by theoretical matters, in his general view of Stoicism, and his emphasis on self-consciousness and religious values. With him Stoicism

[4] Zeller, *op. cit.,* p. 268.

reached a great height as a fully developed practical doctrine, with prominence given to belief in the divine providence in the direction of the world of affairs, as the basis of contentment with the rational order of things. Aware of the mutation and decay of externals, and emphasizing victory over desire for external things, he finds nothing to fear, and every reason to believe in the divine origin of the human spirit, with the sources of happiness in the inner life. He knew many Stoics and sought the essence of virtue for which each stood, first to live by it, then to write about it in the work which has been so greatly admired, his *Meditations*. So he draws upon many philosophers who have gone before, and advances beyond Epictetus in power and insight. His position as emperor gave him a wider experience and a different view of political life. He draws to some extent on Platonic dualism, and places more emphasis on the spirit as the divine or active principle in contrast with the soul. A surpassing peace of mind and beauty of spirit is expressed in his philosophy. He is deeply aware of his dependence, and realizes that through all that has come to him from nature, from men and God he has been made free. The resulting attitude is serenity amidst the Heracleitean flux of things, contentment with the part assigned, inner peace in contemplating fate and sure death. With this emphasis on the immutable amidst all change Stoicism becomes more emphatically the religion of duty, with reverence for and trust in the ruling power. The tendency of this religion is still pantheistic, but it approximates Christian theism.

Acquiescence in the present state of affairs through adjustment, by recognition of what is in our power, and what is not, is the practical starting-point. Then, with freedom from error and deception, and victory over bodily persuasions through dominance of the "ruling faculty," and repose in the inner life, is to come increasing happiness of the abiding kind. Philosophy as a *way of life* thus reaches a climax in realizing what Zeller calls the three points in the theoretic principles of Stoicism: the doctrine of the flux of things, the decay of all existence; the unimportant part of the individual in the whole; and the truth that all things are governed by higher law, by deity or providence.[5]

Boëthius. — Boëthus the Stoic, a contemporary of Panætius, took the position that deity does not dwell in the world as its soul, but in the highest sphere, from which he directs and guides the universe; and so he adopted a middle course between the pantheism of the Stoics and the theism of Aristotle. He also inclined toward the Aristotelian rationalism in his view of the soul. Another Roman philosopher, Boëthius (470–525), translated portions of the writings of Plato and Aristotle into Latin, wrote commentaries on Aristotle and Cicero; also a widely influential work, *De consolatione philosophiæ,* which made known the teachings of Epictetus and Marcus Aurelius in the period between the death of Augustine and the beginnings of Scholasticism, and during the Middle Ages.

[5] *Ibid.,* p. 279.

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See exposition by Windelband, *His. of Phil.,* Part II, Chap. I; Zeller, *Stoics, Epicureans, and Sceptics,* trans.; Hicks, *Stoic and Epicurean* (bibilography).

See, also, Caird, *Evolution of Theology in the Greek Philosophers,* Vol. II; Hatch, *Influence of Greek Ideas and Usages on the Christian Church;* Murray, *The Stoic Philosophy;* Stock, *Stoicism;* Lecky, *History of European Morals,* Vol. I; W. Wallace, *Epicureanism;* A. E. Taylor, *Epicurus;* Pater, *Marius the Epicurean,* 2 vols.; H. Sidgwick, *Outlines of the History of Ethics,* 5th Ed., p. 70, foll.

§ 16. Scepticism

Practical Values.—It is characteristic of the period we have been considering to bring together in some kind of theoretical unity the teachings of various philosophers with practical interests in mind; to substitute cosmopolitanism for nationalism; and to aim at resignation, inner peace, or freedom, so that philosophy as a way of life becomes a religion. The atomism of Democritus is assimilated by the Epicureans, and the cosmology of Heracleitus by the Stoics in support of Socratic conception of virtue, as each school understands it. Primarily it is not a question of materialism or idealism, but of the typically Greek conception of the cardinal virtues, emphasized in any case, and at-

tainable through balance or inner control, for the sake of equanimity in a more or less troubled world. Thus the idea of the unity of virtue receives as much recognition as in the teachings of Plato and Aristotle, the happiness of man is paramount as before, with increasing interest in human nature, in friendship, brotherhood, and benevolence, in an ideal of the value of human life which Plato and Aristotle did not attain. Thus too the Sophists are again refuted, and ethics as the science of the moral life is given first rank, with duty, moral law, and responsibility assigned to their places in an order of concepts which they have retained until today. Man in a universal sense becomes the measure of all things, the solidarity of the race becomes a standard for modern times to return to with hopes of actual achievement, the dignity of man takes the place of interest in man's passing perceptions or opinions, and good-will toward man takes precedence over interest in classes, ranks, and external values. The ethical movement is notable for the supremacy of the practical motive at the expense of scientific interest in the world, and the neglect of problems suggestive of scepticism. Some of its interests in the ethical ideal are shared by the Sceptics, while doubts which have been held in abeyance come to the fore. As Rome was engaged in the process of assimilating various states and peoples, so philosophy undertook its eclectic task in an age of uncertainty and intellectual chaos. It was to be expected that while the Epicureans and Stoics were directing attention to typical attitudes of mind as clues to appreciation of the universe, other thinkers,

in the same age, should call attention once more to difficulties in winning truth. But in thus turning anew to ultimate theoretical issues the Sceptics still keep practical needs to the fore, that is, in their manner of holding the mind in suspense while such issues remain unsettled, that the mind may even in its doubts gain inner peace and preserve it. Hence tranquillity is in a way as greatly prized by the Sceptics as by the Epicureans and Stoics.

Scepticism.—Scepticism is as old and as persistent as philosophy. The philosophy of the Greeks began by raising doubts concerning the existence of mythical objects of belief in favor of a cosmological principle which could be tested by empirical observation. Xenophanes showed the relativity of ideas concerning the gods, and contrasted truth with opinion. Heracleitus was even more scornful of popular conceptions, while Parmenides and Zeno the Eleatic drew attention to a conceptual method of thought which greatly narrowed the sphere of truth. With the introduction of theories of perception by Empedocles, Anaxagoras, and Democritus, subject-matter for acutely sceptical thought was greatly increased. Protagoras has been called the true father of philosophical scepticism.[1] His is the scepticism of suspense of judgment, or indifference, not that of absolute denial: he is unable to say whether the gods exist or not. On the ground that sense-perceptions are relative, he removes the real essence of nature far into the unknowable; and finds both external things and events, and

[1] Benn, *op. cit.*, Vol. II, p. 129.

the reactions of sense-perception in perpetual flux.[2] Aristippus based his ethical theory on Protagorean relativism and so prepared the way for the ultimate doubts of his school. Socrates led the way to practical considerations for those who doubted the possibility of knowledge of nature, although he retained a measure of belief in the gods. Plato is alternately sceptical and constructive, supplying material for a searching critique of all presuppositions and substituting myths, playfully told, for a theory of nature. With Aristotle began the more thorough study of nature which we associate with the term science, coupled with a negative estimate of the teachings of his predecessors. With the decline of interest in science Scepticism came into greater vogue, as the Sceptics brought together the implications of various philosophical teachings. It was not the modern scepticism which has sometimes doubted even the existence of an external world or questioned the reality of the deliverances of consciousness; it accepted external reality, although it might doubt the possibility of science.

Pyrrho.—With Pyrrho of Elis (365–270 B.C.) Scepticism becomes a leading interest. Little is known about his life. He is said to have accompanied the Macedonian expedition to India, and to have been honored with a statue by his fellow-citizens. He was chiefly influenced by the teachings of Democritus and the Megarian school, and he founded a school in his native city. He left no writings, and antiquity was

[2] For the sceptical principles of Gorgias, see Benn, *ibid.*, p. 130, foll.

chiefly indebted to the treatises of his pupil, Timon of Phlius, for knowledge of his teachings.

Pyrrho originated a tendency of thought rather than a doctrine, and summarized for all time the great philosophical interests: "What is the nature of things? What should be our relation to them? What is the practical consequence of this determination?" [3] It becomes plain for Pyrrho's point of view that we know nothing about things in themselves; since every assertion concerning them is subject to contradiction, and reason had been discredited, and sense-perception had been shown to be mere relativity or appearance. If reason were the authority it seems to be, men would agree on questions of conduct, concerning which their judgments embody the surest information. But although men are radically divided on laws, customs, and moral teachings, the way is open for living by what we believe on practical matters; hence the positive teaching of Pyrrho is in favor of the moral ideal which he undertook to realize by living his philosophy, seeking peace. The negative aspect was due in part to his travels in various lands, in which he found such diverse teachings that truth seemed unattainable. He denies nothing, but endeavors to dispel unhappiness in so far as it is founded on the pursuit of fancied goods. Living at Elis a simple, consistent life, asserting and denying as little as possible, maintaining imperturbability, he is said to have endured surgical operations with indifference, and to have manifested great nobility of

[3] Cf. Benn, p. 137; Patrick, *Sextus Empiricus and Greek Scepticism*, p. 81.

character. Once, when knocked about in a vessel during a storm at sea, he did not lose his equanimity, but pointed to a swine calmly eating on board, and suggested that the wise man should manifest as much calmness of soul as that. He is said to have lost his self-control twice only: when angry with his sister, and when chased by a dog. This equilibrium of spirit finds expression in his teaching that, because of the conflict of opposing systems, indifference involving suspense of judgment and apathy is the appropriate intellectual attitude. Since the nature of things is unknown, our relation to them should be free from desire and belief. The result, so far as it is positive, is an empirical doctrine. The Scepticism of Pyrrho is not absolute, because in common with the ethical philosophers of his age he believes in and seeks the highest good; and he not only believed he had found it in "equanimity" but endeavored to realize it.

Timon (320–230 B.C.), the physician and friend of Pyrrho, formulated the questions and answers, and the implied method of thought of his teacher. He also wrote a satirical poem containing the contradictions of philosophy from Thales to Arcesilaus (315–241 B.C.). He questioned the possibility of first principles; since every assumption is founded on a previous assumption, and no demonstration is possible. Since existent things are, so far as we know, neither beautiful nor ugly, neither large nor small, we have "nothing more" to say about them. Since real things are inaccessible, one should beware of taking part in heated discussion. Various inferences follow in regard to a life according

to custom, for the sake of peace. To be a dogmatist would be to affirm knowledge; to try to demonstrate its impossibility would be to revert to sophism.

After Timon the teachings of the Sceptics passed into those of the Academy, Arcesilaus being the first leader of the Academy to forego the traditional doctrines and call attention to the shortcomings of Epicureanism and Stoicism. The Sceptics called attention to variability among creatures in general, differences among men, differences in the same man (illusions and conflicts of the senses), differences even in the deliverances of the same sense-organ, the variability of what is taken to be truth during the changing conditions in the subject, variations due to changing the circumstances of the object, through quantity, through relativity, in the part played by custom, and in varying beliefs, everywhere, so that there is no consensus of the competent. The senses are doubted, also reason as founded on them. The effort to produce a system seems hopeless. But there remains the task of training pupils in the art of dialectic, with suspension of judgment as the ruling attitude. This was the training undertaken by Arcesilaus, who sought to refute the Stoic theory of irresistible impressions, gave attention to the refutation of all theories of knowledge, and to probability as the guide of life in practical life.[4] Arcesilaus exemplified the ruling attitude of suspense of judgment by refraining from writing a book, and devoting himself to employing axioms in the attack of others, whom he was fond of assailing

[4] Zeller, *op. cit.*, p. 499.

intellectually. He held that while sure knowledge is impossible, we do not need knowledge to act sensibly. He is described by Diogenes Laertius as free spoken, quick at meeting objections; but as a very kind man, liberal, thoughtful of others.

Carneades.—Known as the greatest Sceptic because of the wider application which made of the sceptical principles, Carneades (213–129 B.C.) was at one time a pupil of Chrysippus the Stoic, from whose works he gathered his material. He was a critic of the Stoic views of nature and God, even of their doctrine of the moral life. When sent to Rome on an embassy, with other philosophers, he amazed his hearers by delivering an address on the first day in favor of justice, and by an equally able address on the next day against it. He held that states of consciousness bespeak their own existence only, and do not include awareness of an external cause. He based his denial of certainty on the fact of the illusions of sense-perception. He was sceptical too of all theology, and because of the acuteness of his criticism has been called the Hume of antiquity.[5] The prime result of his criticisms was scepticism in morals as in cosmology and theories of knowledge, with probability (in three grades) as the only guide in all fields. Thus Scepticism was brought to its limit, and the value was shown of beliefs, more or less probable in God or other objects indispensable for practical needs. If we are unable to compare sensations with things outside of us, if thoughts and sensations

[5] Benn, p. 151.

conflict, so that we find no criterion of truth either in sensation or in conceptions, we are left with the relativities of varying ideas, some of which may be equally clear and distinct, perplexingly self-evident. Carneades drives the inquiry further by showing that we cannot give "assent" to an idea but only to a judgment, therefore we cannot prove anything. Any attempted proof would involve assertions concerning what is said to exist, hence in a way a claim to knowledge. So the typical "suspense of judgment" of the Sceptics takes on a more subtle meaning, and thought is left with the most cautious relativity, qualified only by the sufficient certainty which makes possible the moral life as purely practical. This Scepticism has its positive contribution to make to the period of ensuing Eclecticism, however; for if various doctrines are to be welcomed in terms of their varying degrees of probability, stress may be put on their common values.

Carneades was succeeded by Clitomachus (born after 175, died about 110 B.C.) the Carthaginian, who reduced the teachings of Carneades to writing; and Philo the Larissean, who softened Scepticism as not absolute but as the criticism of the untenable positions of Stoicism, and by adopting the theory of innate ideas by adaptation of Platonic teachings.[6] Ænesidemus of Cnossus, in Crete, who flourished between 80 and 50 B.C., was a young contemporary of Cicero who taught at Alexandria. He returned to the Scepticism of Pyrrho, by maintaining that strict

[6] Benn, p. 160.

Scepticism should be the aim: to assert that only probability exists, and no certainty, would be dogmatism. Hence he neither affirms nor denies but merely investigates (this is the original meaning of Scepticism), and says "perhaps" things are thus and so. The result is a collection of *tropes* or points of view pertaining to the relativity of sensation, of predicates, the untenability of conceptions of cause and effect. Ænesidemus summarized these variabilities in ten tropes, and so gave a fairly complete enumeration of the arguments against knowledge.[7]

Later Sceptics.—Agrippa, in the next century, reduced the tropes to five, and argued against the possibility of knowledge on the ground that the major premise of the syllogism is an infinite regress. Sextus Empiricus (said to have died at Alexandria about 300 A.D., although his date is given as about 200 A.D. by some scholars), a Greek empirical physician, important as a man of learning to whom we are indebted for our knowledge of many of the ancient doctrines, especially the teachings of the Sceptics, wrote a work *Against the Mathematicians,* and *Pyrrhonic Hypotyposes.* He divided philosophy into three kinds: dogmatic, academic, and sceptic (still seeking the truth). He did not deny the existence of phenomena, since only by our sensations can our actions be guided. Subjective experience is more immediately real, but something is taken for granted as existing outside our sense-experience. Suspension of

[7] Summarized by Weber, revised Ed., p. 116; interpreted by Benn, p. 184, foll.

judgment having been secured, and all arguments shown to be refutable, inner peace follows. A trope is a manner of thought in the form of a judgment, a standpoint of judgment. Sextus gives eight arguments against causality and the possibility of knowledge of nature. It has been said that there is not a paragraph in which he does not dogmatize on something.

§ 17. The Scientific Movement

While systematic philosophy was falling into neglect, the sciences, set free from metaphysics, were flourishing in the Mediterranean islands and in Egypt. In Sicily, the Pythagorean doctrine persisted without interruption; and as early as the third century, B.C., Hicetas and Archimedes of Syracuse inculcated a system of astronomy which was greatly superior to the astronomy of Plato and Aristotle, and anticipated the Copernican system. Archimedes taught the method of determining specific weights, invented the sun-glass and endless screw, and formulated the science of mechanics in part by proposing his theory of the lever.[1] Aristarchus of Samos advanced the hypothesis that the earth moves round the sun, and tried to substitute the heliocentric for the geocentric theory. This hypothesis was developed by Seleucus of Babylonia; but was opposed as impious not only by Ptolemy, the Alexandrian astronomer, but by the Stoics. Alexandria became the centre of the educational and sci-

[1] Cf. Weber, p. 122.

entific world under the Ptolemies, who founded the Museum, organized the sciences, and encouraged scientific men from all lands. For the naturalists, there was a botanical garden, a zoölogical collection, and an anatomical building; for the astronomers, an observatory; and for literary men, a great library. There, about 290 B.C., Euclid wrote his *Elements of Geometry,* and treatises on *Harmony, Optics,* and *Catoptrics.* Apollonius of Perga published his work on *Conic Sections;* while Claudius Ptolemy issued his *Almagest,* the authority on astronomy till the time of Copernicus. Meanwhile, the congregating of literary men and biblical scholars prepared the way for philology, the translation of the Hebrew Bible into Greek; and the comparison of various types of religion. The prime result was a fusion of beliefs, some of which we are presently to consider.

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CHAPTER V

THE RELIGIOUS PERIOD

§ 18. Religious Eclecticism

With the waning of interest in the Greek systems, came a period of Eclecticism (a harmony of diverse doctrines) in which the great systems were praised without being developed. Thus devotees of Stoicism modified their doctrine by uniting it with some of the teachings of Aristotle. The Romans, who possessed no philosophy of their own, borrowed freely from the Greeks. Antiochus of Ascalon, whom Cicero heard in Rome, 79–78 B.C., held the view that essentially one philosophy was taught by Plato, Aristotle, and the Stoics, allowing for changes in terminology. The Romans in general selected the teachings which met their needs. Cicero is not credited with any constructive power, but he made his countrymen acquainted with the types of thought which interested him, and in a measure naturalized Greek philosophy, by passing beyond the warfare of the schools and co-ordinating principles which seemed to him the more probable.[1] Eclecticism characterized the interests of representa-

[1] See Benn, p. 170, foll.; Turner, *His. of Phil.*, p. 190, foll.

tives of the Academy, the Peripatetic school, and the Stoics. With the coming of Christianity upon the scene, still other unifications were proposed, in the form of a Græco-Jewish philosophy; Pythagoreanism assumed new life; and the ideas of God advocated by Xenophanes, Socrates, and Aristotle were put in contrast with the Christian conception. So too the Stoic effort to assimilate traditional polytheisms on a monotheistic basis found favor from other points of view. Orpheus, Pythagoras, and Plato were brought into comparison with Moses, Isaiah, and the Apostle Paul.

In the conception of the Logos was found a means of contact between Greek thought and Christian teaching, the Logos being also the connecting link between many forms of religion. Alexandria was the natural meeting-point for all faiths, with its opportunities for interchange of Oriental and Occidental ideas. Neo-Pythagoreanism was a connecting system, on account of its religious values, its transformed monotheism, and other teachings, fostered especially by Apollonius of Tyana (in Nero's time). Pythagoreanism was also united with Platonism, by means of the dualism of matter and spirit, and the adoption of the Ideas as creative archetypes of the divine spirit. The Ideas were also identified with the Pythagorean numbers; and with the Aristotelian forms. Orphic ideas of the soul as in need of purification through asceticism also enter into account. Pythagoras and Apollonius were both revered as men who had made the great attainment. A significant aspect of all these religious eclecticisms is this merging of the creative

archetypes, under whatever term, in the divine mind, which then becomes the immanent principle of the universe. Significant too is the authority vested in the Neo-Pythagorean teaching as a "revelation," in part to offset the claims of the Hebrews, and in accord with the mystic tendency of the age. A higher type of experience, an intuition is given precedence over processes of reason, and the way is open for the mystic thought of succeeding centuries as a way of escape from the dilemmas of Scepticism.

Neo-Pythagoreanism.—Neo-Pythagoreanism was popular because it not only "dramatized the soul's redemption," but supplied the fantastic number system which gave an impetus to the main stream of mystical tradition.[2] The Golden Verses of Pythagoras appeared about 100 B.C. Plutarch (50–125 A.D.), the widely known biographer, is an important representative of this age because of his vivid pictures of the time, and because his writings have survived. He expounds an eclectic Platonism, with teachings taken from Aristotle, the Stoics, and the Neo-Pythagoreans. He is little interested in theoretical issues, but is perplexed by the problem of evil, and refers favorably to the Persian dualism concerning Ormuzd and Ahriman. He rejected the Stoic materialism and Epicurean "atheism," and brought forward the idea of an evil world-soul, but departed from tradition by conceiving of the world as beginning in time. It is typical of his age to be uncertain where to place superstition, and to retain the demons as intermediaries in

[2] Inge, *op. cit.*, Vol. I, p. 82.

the operations of the world.[3] More enlightening is the close connection he finds between ethics and religion.

The rhetoricians, Maximus and Apuleius, also develop an eclectic Platonism in which demons play an important part. Apuleius separates the idea of God from the world as transcendent, impassible, inaccessible. Celsus (abt. 200 A.D.) uses the theory of demons to defend polytheism and national worship. Numenius of Apamea (abt. 160 A.D.) founds his Neo-Pythagoreanism on Platonism by reference to a demiurge, or second deity; and introduces doctrines from the Jewish religion, the Magi, Egyptians, and Brahmins. Regarding Plato as a prophet, he indulges in the fantastic proposition that Plato was "a Moses speaking Greek." The Egyptian branch of Neo-Pythagoreanism is identified with the name of Hermes Trismegistus [4] and the so-called Hermetic books, with their defence of the Egyptian worship in contrast with Christianity. Attempts to convert the Greeks to the Hebrew religion began as early as the time of Antiochus Epiphanes (167 B.C.). Zeller takes the doctrines of the Essenes to be a commingling of teachings prevalent in Palestine with Orphic Pythagorean asceticism and Neo-Pythagoreanism.[5] The greater meeting-point of the cults was however Alexandria. "The East and West met in its streets," says Inge, "its lecture-rooms, and its temples. It was there that

[3] Cf. Zeller, *Outlines of the His. of Greek Phil.*, p. 312.
[4] Erdmann, *His. of Phil.*, Vol. I, p. 214.
[5] *Op. cit.*, p. 317.

first Judaism and then Christianity became Hellenized . . ."[6] The Jews acquired the Greek language, and with it Greek ideas, the first evidences being found in the fragments of a treatise by Aristobulus (abt. 150 B.C.). Then began the assumption that even the oldest Greek philosophers, notably Pythagoras and Plato, had used the Hebrew scriptures. The pseudo-Solomonian "Book of Wisdom," which belongs in the first century B.C., by its Jewish eclecticism prepares the way for Philo.

Philo.—Typical of this epoch is Philo, born about 25 B.C., died 50 A.D., who came from one of the most influential Jewish families in Alexandria, and who was chosen by the Alexandrian Jews (39 and 40) to head the embassy to Caligula. Devoutly orthodox, and claiming to have the experience of inspiration, Philo proposed a theory of revelation, basing his doctrine on the Jewish scriptures, in which he ascribed to biblical writers the fulness of divine enthusiasm, and infallibility of utterance. The central idea in this theory is the idea of God as first cause, supreme, manifested in all space, comprehending all things, but not comprehended, that is, absolutely transcendent, so far beyond all finiteness that he can only be defined negatively. Yet, although God can only be approached in thought by denial of all empirical qualities, he is the ground of all things in the universe, and there are intermediaries which relate him with impure and evil matter. Philo regarded Moses as the supreme prophet, but his education was Greek, he knew the various

[6] *Op. cit.*, p. 81.

systems of philosophy, and was free to recognize elements of divine truth in them. Hence he incorporated Pythagorean, Platonic, Aristotelian, and Stoic doctrines, borrowing the methods of the schools. He used Greek terms to reconcile the Pentateuch with his idea of God. Various activities are said to proceed from God, so that the angels of the Jewish religion become identified with the Platonic Ideas and formative forces. The unity of these intermediaries is in the Logos, the second God or divine reason (wisdom), whose teleological activities reveal the divine presence in the world.[7] The Logos is at once the first-born Son of God, creator of the world, Stoic world-soul, the power and goodness of God made substantial; and the source of illumined reason in man. Man then possesses a faculty of spiritual discernment, his intuition culminates in the apprehension of God through a supra-conscious ecstasy, which is a revelation and gift. Supernatural revelation is the test of truth. This incorporeal or spiritual element, constituting pure intelligence in man is added to him from above, making man an image of God, while on his nether side man is involved, through the body of mortality, in manifold earthly desires (the irrational part of the soul), and needs to rise above all sinful contacts with the world of matter (the source of evil) to a state of blessedness. Man is both pure thought and will. Through self-love he enters into evil, through moral training, serenity, apathy, and the surrender of the

[7] See J. Drummond, *Philo Judæus,* for historical development of the Logos doctrine.

lower self, and by following God he can, by divine grace, be emancipated from all bondages, be delivered from his body.

Philo is also important because he enforced allegorical interpretation, giving it a method, and distinguishing between the literal and spiritual meanings of scripture. He taught that God, to make his Word accessible to men, gave to revelation a certain form, which constitutes its body, wherein is to be found the true meaning or soul. The inner or spiritual sense is to be discerned, interpreted, and formulated. Thus began the effort which was to continue through the ages of "interpreting religious documents into a system of scientific doctrines" (Windleband) by the aid of philosophical conceptions borrowed from the Greeks.

SELECTED REFERENCES

Consult: Drummond, *Philo-Judæus,* 2 vols., 1888; Conybeare, *Philo;* Kennedy, *Philo's Contribution to Religion,* 1919; Schurer, *History of the Jewish People;* Whittaker, *The Neo-Platonists,* 1901; Benn, *The Greek Philosophers,* Vol. II, Chap. IV (The Religious Revival); Inge, *The Philosophy of Plotinus,* Vol. I, p. 97; Bigg, *The Christian Platonists of Alexandria,* p. 26.

§ 19. Neo-Platonism. Plotinus

The tendency of thought among the Pythagoreans to interpret their inner doctrine as a revelation, to regard Pythagoras as a world-savior, and Apollonius as a miracle-worker, thus to offer a complete alternative to Christianity, falls into relation with another

movement tending to give new life to Platonism by interpreting it as a religious view of the world. Philo's teaching was in part an anticipation of this view. Ammonius Saccas (175–242), at first a day-laborer, then a teacher of philosophy at Alexandria, was, according to Porphyry, born of Christian parents but reverted to the Greek religion. He was the first among teachers of prominence in Alexandria to attempt to reconcile Plato and Aristotle. As he left no writings, our knowledge of what Ammonius taught is limited. As the teacher of Plotinus he is regarded as the forerunner if not the founder of the Neo-Platonic school. Another disciple, Cassius Longinus, critic and philologist, supposed author of the treatise *On the Sublime,* who was executed by Aurelian in 273, gave a different interpretation. Origen (not the Christian theologian) gave still another interpretation. Apparently then the teaching of Plotinus may be regarded as the beginning of Neo-Platonism. The Syrian branch of the school was represented by Jamblichus (d. 330); and the Athenian by Plutarch the Younger (350–433) and Proclus (411–485), to be considered below. Porphyry (232–304), disciple of Plotinus, persuaded his master to produce manuscripts, which Porphyry revised and edited in six *Enneads,* the chief source of our knowledge of the system.

Plotinus has often been expounded very briefly, in disparaging terms as a mere mystic, representing the decadence of Greek thought, or as a devotee of Oriental philosophy. In recent years he has been more profoundly interpreted, especially by Inge.

Life of Plotinus.—Little is known about the life of Plotinus, who took scarcely any interest in the events of his physical existence. Born at Lycopolis, in Egypt, about 205 A.D., his parentage is unknown. He was educated in Alexandria, at twenty-eight he began the study of philosophy, and after studying with various teachers attended the lectures of Ammonius Saccas for eleven years. Later, Plotinus joined an expedition against the Persians under the Emperor Gordian, to become acquainted with the Persian and Hindoo systems. In 243–245 he settled in Rome, where he organized a very successful school. He died at his country estate in Campania, 269 or 270. He was highly esteemed by the Emperor Gallienus, and nearly gained permission to restore a ruined city, which he planned to govern after Plato's ideal of the true state. Plotinus was said to be both intellectually and personally attractive, kind, patient, obliging, quick to serve, and so practical that he was entrusted with the care of numerous children. His house was filled with young people, to whose interests he gave careful attention. He also had many admirers and pupils. He sometimes arbitrated the disputes of Roman citizens, none of whom became his enemy. Once he saved Porphyry from suicide by explaining that his pupil was suffering from the blues and needed a vacation. He was said to possess unusual insight into human character, so that he foretold the future career of children in his care. These human touches are significant, in view of the traditional classification of Plotinus as a mystic. Plotinus began to write when

forty-eight, after his system was thoroughly worked out, and after years of experience as a teacher. He is said several times to have enjoyed the state of ecstatic union with the divine, which, as an interpreted experience, was assigned a place in his system. There is every reason to believe that, whatever Plotinus owed to Ammonius Saccas, he regarded himself as the disciple of Plato, to whom he refers more than a hundred times in the *Enneads*.[1] It is the teaching of the *Republic* concerning the Good, rather than any doctrine attributable to Oriental sources, which afforded the constructive clue to Plotinus' system.

The Method of Plotinus.—In typical forms of mysticism it is customary to discount reason both as a method and as an endeavor to grasp ultimate reality. The result is an emphasis throughout on the quest for God through ascetic training, the cultivation of intensive feeling or emotion which is to culminate in ecstatic union with God; and an idea of the world implying either the emanation (in contrast with creation) of the world from God or its mystical identity with God in some form of pantheism. The mystical element is present in Plotinus' system, but his system is essentially a rationalism.[2] Benn points out that the mystic element represents not more than one per cent of the total. Whittaker has shown that the method is not mystical, and that the theory of emanation is a systematic expression of the principle common to Plato and Aristotle that the lower is to be explained by the

[1] Benn, *op. cit.*, Vol. II, p. 285.
[2] *Ibid.*, p. 312.

higher.[3] The term "emanation" is explicitly metaphorical, while the term "pantheism" may only be applied with the reminder that Plotinus neither rejects dialectic reasoning nor confuses God and the world. Physics is not disparaged, but is taken to be the science of the Spirit in nature, which is an image of Spirit, aspiring to attain the realm of Thought (Nous). The higher reality of the human soul is the great consideration, and the system as a whole is developed by a searching analysis of inner consciousness in its various phases. Plotinus regards dialectic as the higher part of philosophy, and he develops the dialectic movement toward true reality by following an order of thought which he is convinced will be eminently successful: truth can only be found by reason, and to try to rise above it would be to fall outside. Philosophy indeed is knowledge of things in their most intelligible character. If the life of thought, through the Ideas, falls short of reality in any sense, it is only because there is a central principle of explanation by which thought itself is accounted for; since it is not thought which gives value to the Good, but the Good which gives value to thought. Granted the central principle, the whole system is developed in accordance with a dialectic method.[4] The demonstration of this interpretation is made by Inge in *The Philosophy of Plotinus.*

The One.—Few philosophers have more resolutely insisted on a first principle. Plotinus uses his

[3] *The Neo-Platonists,* p. 55.
[4] See Benn, *ibid.,* p. 312.

conception of the One or Absolute as the first and last word of his system. There is a graduated descent from the One through all forms of existence to irrational or unformed matter, then an orderly ascent to the One. Apart from this unitary Principle there is nothing real or existent. The One is not merely numerical, but a true whole; it gives birth to the parts, is not a mere collection of the parts, not an abstraction.[5] It is absolute unity because at the top of the scale of unities, as perfect simplicity, above all differentiation, without limit or boundary, fundamentally infinite. It is identical with the Good: it is the very nature of the Good to be simple and be the First. The One is self-sufficient, beyond substance, beyond Spirit and the spiritual world,[6] even beyond activity and discursive thought; without an Other; and not to be identified with the things which arise from it by way of manifestation, its nature being to give rise to all things by remaining superior to them. The One does not then become immanent in the universe of its own productions, but remains transcendent; logically prior to all plurality, in this sense ineffable.

Hence the One is first characterized in negative terms as not substance, not quality, neither motion nor rest, not in place or time. Yet it is not quality, for example, because prior to any quality; it is all will because there is nothing in its nature prior to or outside of its will; it is all necessity because it has no

[5] Inge, *op. cit.*, Vol. II, p. 108.
[6] Inge uses "Spirit" and "spiritual world" for *Nous* and the more customary "intelligible world."

contingency and is not subject to necessity. The Cause of all things, it is in a sense everywhere, while not located in space: it is first and final cause of a hierarchy in the spiritual and phenomenal worlds. Any particular predicate would identify it with one of its products, therefore with limitations, as in the duality of the subject-object relation, or in the lack of something implied in human acts of will.

The Universe.—No assigned motive would indeed tell why there came to be a cosmos. The utmost that Plotinus can say is that it is not in the nature of the One to be alone. What sprang forth in freedom, came into manifestation not from necessity, the nature of the One being to give: the Good cannot remain envious. A consciously assigned purpose would imply differentiation of subject and object. If things came forth by division in the One, the One by such derivation from it ceases to be the First. The causal activity is under the guise of eternity. This *going forth* into manifestation is not strictly speaking a process of "emanation," because there is no communication and no diminution of divine substance. The better figure is this: the One, essentially perfect, lacking nothing, "overflows" through plenitude of goodness, in abounding power. Creation is like a beam of light sent forth from a central luminary which thereby loses not one whit of its brilliancy. All things are dependent as in an unbroken chain, descending and ascending, a series in which the One is present to all grades, penetrating all things with its power. The One would have been hidden had there been no world. As disclosed, it is

not only the Good, but Beauty, the path of beauty, flower of all that is beautiful, howbeit a Beauty not completely embodied in forms.

Spirit.—Discerning in what sense the One is to be regarded as the potentiality of all things, we may proceed to the discovery of what the One is by learning what exists of which it is the Ground. In the graduated descent things possess reality or worth in proportion as they are one and are like the One. The first product (Spirit) is unifying, the ground of all plurality in that which is below it, first in the spiritual, then in the phenomenal world. As creative activity, Spirit contains the spiritual world. It is the ground of spiritual perception, the power and its product being one. In other terms, the thoughts of Spirit are the Ideas, God's thoughts; and the spiritual world is the pure ideal cosmos, or kingdom of the Ideas, which includes true reality, true beauty, unity in diversity, and diversity in unity. The ideal world is not merely a realm of values or moral, intellectual, and aesthetic ideals: the Ideas are constituents of reality, divine attributes which make Spirit known, qualities possessed by all spiritual things. The ineffable Godhead manifested to men so that through their highest life-principle communion is possible. In the ideal world, where finite relations are superseded, all is timeless intuition or living contemplation. There is perfect rest, unimpeded energy, all opposition between tension and free action being transcended. The relation between that world "yonder," with its vigorous and harmonious life, is intimately parallel with the life here

"below" where there is only partial integration amid jarring elements. Hence the soul is able to pass without abrupt transition into the eternal world, finding itself at home. "There is nothing between." "We are kings when we are in the Spirit." Plotinus' world "yonder" is not merely the future life: the Spirit is the basis of the best life here. "Spirit possesses all things at all times, simultaneously. It possesses all things unchanged in identity. It *is;* it knows no past or future; all things in the spiritual world co-exist in an eternal now."

The Soul.—The Universal Soul is the second stage of manifestation. In itself incorporeal, Soul gives rise to plurality in corporeal things. Particular souls proceed from the Universal Soul. So the descent continues to the lowest level of creation, from which is to proceed the ascent or evolution. Each process gives rise to the one just below it, so that the higher in each case is the logical ground of the lower, its product, the entire world-process being dialectical. Hence the world may be intelligibly called the manifestation of Spirit or image of divine Thought, despite the fact that on the lowest level what we have is a mere husk or formless matter. The great Light shed forth from the centre decreases till utter darkness prevails in what we may call the farthest confines of the universe. Plotinus does not presuppose "matter" as the substratum of all becoming or change, as in previous systems. Darkness is the uttermost contrast to ineffable Light, the phase of production where rationality is at its minimum. This matter has only a contingent exist-

ence, is pure potentiality without any potency, it is not even material, as the term is usually understood. Hence Inge compares it to a beggar at a feast, intruding where it has no right to be, obscuring the light which shines upon the soul by mingling its own darkness with it.[7]

The Two Worlds.—It is in this its darkest phase, as helplessness or negativity, that matter is the source of evil. Matter does not itself constitute an evil world. Everything depends on the scale of values. The image of higher things is present. The world of appearances, although imperfect, is still a reflection of the spiritual world in the mirror of matter; nature as a whole is the image of a higher contemplation, a creation of Universal Soul. The higher phase of Soul is disclosed in the spiritual world, the lower in the world of sense. Plotinus relates the Soul and nature so intimately that he sometimes describes them as if they were one. But always there is the distinction of higher from lower values: it is only the spiritual world which should be called one, since the world of nature is not real in itself. The world of manifestation is necessary, as Spirit would not otherwise be Spirit. But it is the lower which needs the higher to become complete. The world is not in any sense a constituent of the Godhead. Even the pattern whereby Soul creates the world is disclosed by Spirit, not by the One in ineffable purity. Plotinus also makes it clear that the Universal is no mere aggregate of individual souls as "parts" or functions only. The Universal indeed resides in the indi-

[7] *Op. cit.*, Vol. I, p. 131.

vidual, so that in a sense each is universal. But the individual is also unique, and its consciousness is not a mere part of the Universal. When we as individuals look upward we find our true reality. When we look outward or downward we forget our unity. Indeed the finite soul may look so far downward as to fall away from perfection, becoming contaminated. Yet even in the lowest moment of its fall the enveloping darkness from which it needs purification is to be described only in relation to the fulness of the One. For the darkness is never intelligible by itself. Our thought returns to intelligibility, after its wanderings, by an "about face" which puts our consciousness once more in relation to reality at the top of the scale. The lower is never intelligible by itself.

Psychology.—Plotinus makes his starting-point secure by refuting the materialistic psychology of the Post-Aristotelian schools, and outlining a spiritual psychology.[8] Analysis of consciousness shows that we are aware of feelings of pleasure and pain; we are subject to fears, capable of courage; we desire certain things, are repelled by others: there must be a subject of which these affections and acts are the states, a subject which studies the phenomena of our mental life. The life of sense begins it is true before the life of thought, but the body is an instrument of the soul, and there is far more in the life of consciousness than the body accounts for: personality is more than a property of body, the self as *soul* has qualities and realities of its own. We possess self-awareness, our thought uni-

[8] Chaignet, *Histoire de la Psychol. des Grecs,* Tome IV, 50.

fies our memories, and the self as a unity persists through diverse experiences of sensible objects. The body is composite, extended in space, divisible, changeable, perishable; is never truly one, its elements being constantly in process of change; its very nature is such that the phenomena of life and thought cannot be explained by it: the condition of genuine explanation is the *unity of the soul.* The soul is not "mixed" with the body, is not a mere (Pythagorean) "harmony": Aristotle had to pass beyond his biological description in order to complete his psychology. The soul possesses real *being,* is immortal, of the same nature as the divine, the "home" of divine things: wisdom and virtue. Although incorporeal, one, simple, indivisible, the soul has divisions within its own selfhood; thought has its own intelligible objects, its discursive processes and its intuition. In this its own intimate reality, *to think is to be;* self-consciousness is consciousness of the nature of thought, implies the existence of a unitary ego. In contrast with the body, the soul is active, never purely passive even in receiving sensation; it inherently possesses the intellectual forms which enable it to think sensible objects, is already the reason of things. The Reason which sheds its light on us and makes reason in us possible comes from the great Light (the One): it is this superior principle, arising from the source of all existence, which makes possible the activities of sense-perception and discursive thought. The prime mover behind all thought is the desire to attain the Good; so the basis of all psychology, theory of knowledge, and theory of virtue is the

same. Intuitive reason unites us with the One: love of the One underlies not only all other aspirations but is at the basis of all intellectual activities even when they appear to be purely discursive.

To attain the first principle of thought is not alone to think first reality in logical, unifying terms, but to possess the same principle in practical life as a realized ideal: man must "become one instead of many," rational through and through; to know the Good is to become good; to discern the true Light is to assimilate ourselves to its source, with the realization that it is this Light which makes all consciousness possible. Our thinking has limits, because of the distinction between subject and object, which we must transcend, passing beyond all plurality to the One in a union by no means foreign to our nature, but in the profoundest sense a self-realization.[9]

Unity and Diversity.—There are two points in the system where it is difficult to explain the rational connection, the point where the One gives rise to Spirit and the work of productivity proceeds, and the point where all discursive thinking ceases on the ascent towards the One. We have seen that Plotinus is compelled to resort to figurative language to bridge the unutterable relationship between God and the world. Yet we also saw that despite this difficulty the relationship is essentially a logical one. The One is the potency of all things, and its first product is all

[9] For Plotinus' conception of the mediating pneuma, sensation, memory, imagination, and discursive reason, see Inge, *op. cit.*, Vol. I, pp. 219, 222, 226, 231, 234.

things actually.[10] For knowledge of things in their immaterial essence is the things themselves, as Whittaker explains. "Within its indivisible unity it contains the archetype of the whole visible world and of all that was or is to be existent in it. The relation of its Ideas to the whole of Mind [Spirit] resembles that of the propositions of a science to the sum of knowledge which consists of them. By this comparison which frequently recurs, Plotinus seeks to convey the notion of a diversity in unity not expressed as local separation of parts. The archetype of the world being thus existent, the world in space is necessarily produced because its production is possible." "There are as many formal differences as there are individuals, and all pre-exist in the intelligible world. What must be their mode of pre-existence we know from the nature of Intellect as already set forth. All things there are together yet distinct. Universal Mind contains all particular minds; and each particular mind expresses the whole in its own manner. As Plotinus says in one of those bursts of enthusiasm where his scientific doctrine passes into poetry: 'They see themselves in others. For all things are transparent, and there is nothing dark or resisting, but every one is manifest to every one internally and all things are manifest; for light is manifest to light. For every one has all things in himself and again sees in another all things, so that all things are everywhere and all is all and each is all, and infinite the glory. For each of them is great, since the small also is great. And the

[10] See Whittaker, *op. cit.*, p. 62.

sun there is all the stars, and again each and all are the sun. In each, one thing is pre-eminent above the rest, but it also shows forth all.' " [11]

The Mystical Element.—The more difficult transition is at the point where the dialectic, in its ascent, reaches the limit of discursive thinking, when we endeavor to attain the One by being truly one ourselves. The quest for beauty and virtue elevates the soul, as in the original Platonic system. In very truth the One is beauty itself, thought is beautiful, and the Idea of the beautiful is intelligible as a lofty intuition which a man can attain by long training in contemplation of the beautiful in the objective world. So too virtue is intelligible as the climax of virtues leading to the contemplative life which frees the soul from the burdens of sense-existence and tends toward the highest state of inward moral perfection. Yet for Plotinus the Good is above both the beautiful and virtue as thus described. To discover the principle of all dialectic in its system is not enough, or even to know that the Good transcends all: each soul must rise into the heights of its own unity so that, by realizing the One, the soul possesses the One as in no sense external but as within the soul's integrity even though in his folly man flees from God as if fleeing from himself. "He who knows himself will also know from whence he is derived." The One as principle of all things is always present, since it knows no difference. It does not aspire after us, but we seek it that we may revolve about the One, beholding, possessing at last the goal of all our long-

[11] *Ibid.*, p. 63.

ings; the fountain of life which gives forth life without any diminution. He who has attained this goal will know what truths a man wishes to utter but cannot express save in figures of speech "in imitation of that which is real." He will be at peace, full of "intelligible light"; not "absorbed," as a Hindoo sage might say, not identical with the One: for Plotinus insists that the light from the central source can be rationalized. The immediacy of the beatific vision is indeed superior to reason, as that term is usually understood, but the vision is for Plotinus logically prior to reason, so that, by attaining it, one sees why an insight is required that reason may attain completion. Cautious in his statements, even when approaching his climax, Plotinus says that "perhaps" subject and object seem to have become one in this vision, and that it would be "bold to speak thus." Even if tempted to say that centre is conjoined with centre, he must again qualify by admitting that seer and seen are not one but two. We are to understand that the illumination was not won by a sheer process of thought as activity, because the soul must become unmoved, like the One, established in quiet and solitary union beyond which there is no "other" for which to yearn. He who has enjoyed this union "will have an image of it," and this image will be the basis for the description of it as an intuition. Possessing the reality whereof these its figures of speech are emblems merely, the soul will not be misled, nor will it mislead others. Plotinus' "flight of the alone to the alone" is not mere ecstasy, not unknowable; it is "difficult to know" because it "has no

ignorance," does not cognize itself as object, and does not even require an Aristotelian self-contemplation.

Plotinus does not simply say, "Who knows him is silent," as some seers have said; but wishes to describe the entire pathway, that each devotee may envisage the steps; becoming wisely "single," overcoming all impediments, "entirely converted into its inmost recesses." The One as goal is not an abstraction but a plenitude, appreciable through the fulness of life. Therefore Plotinus believes that he has overcome the dualisms of previous systems: the One is not remote, like Aristotle's unmoved Mover; for the archetypal Ideas, immanent in the divine mind, are expressed through the actual formative forces of the world. So too in the daily life of man on earth there is direct connection between moral preparation, ascending stage by stage, and its climax in the beatific vision, which might come to the fortunate two or three times in a life-time. For all men there is the ascending process of purification, contemplation of the beautiful, philosophic study, and constancy in preparing for the beatific climax. The philosophy of Plotinus is to be understood then as bringing to completion the Greek idealistic system, both in its theoretical aspect and as a "way of life."

Later Neo-Platonism.—The system which, viewed as a rationalism, marked the culmination of a profound way of thinking, was also viewed as mysticism, a sign that religious eclecticism was coming more and more into vogue. When the mystic element was taken out of its context as the culmination of the

dialectic, with the rationalism subordinated, the idea of *emanation* became a central principle instead of a figure of speech. The scheme of intermediaries between the One and the world was then brought to the fore in terms of the polytheism of those who believed in good and evil demons, as in certain forms of Neo-Pythagoreanism. Thus Porphyry, interested in the salvation of the soul, emphasizing the religious and ascetic values of his master's teaching, dwells on certain ascetic practices, such as abstinence from flesh, and celibacy; and introduces magic and the worship of demons. The demonology, with all the superstitions of his day, enables him to defend the religion of his people, as against the Christians. Magic and theurgy serve his purpose because he holds that there is need of manifold aids in the upward struggle from sensuality.[12] In a more philosophical direction, Porphyry was influential because with him begins the line of Neo-Platonic commentaries on Aristotle: his *Introduction* to the Aristotelian logic had enormous influence during several generations of medieval thinkers.

Jamblichus.—The concessions to tradition made by Porphyry become for his follower, Jamblichus of Chalcis (d. abt. 330 A.D.) central points of interest in further modifications of Neo-Platonism. Jamblichus was of Syrian origin, and was thoroughly imbued with Oriental influences. He defended polytheism, and distinguished various types of gods and celestial beings. He held that the One, as supreme God, is not only above all intelligence but above all qualities, so that the

[12] Cf. Zeller, *Outlines*, p. 342.

lesser deities do not participate in the One at all, and the One has no share in the government of the world. A whole school of followers elaborated and circulated the teachings concerning sacrifices, prophecy, theurgy, and the triads of secondary powers. The well-known Hypatia, head of the school in Alexandria, was a representative of this type of doctrine.

The Athenian School.—In the Platonic school at Athens, where the study of Aristotle was still in progress in the fourth century, Aristotelianism was combined with the teachings of Jamblichus, and was influential during the fifth and sixth centuries. Plutarch (the Athenian, also called the Younger, 350–433) became the leader of the school during the middle of the fifth century, and united the psychology of Plato and Aristotle with magical and theurgic arts. Syrianus, Plutarch's successor, drew upon Orphic and Neo-Pythagorean writings, and Chaldæan doctrines. Chief in importance in this school was Proclus (411–485), a pupil of Plutarch and Syrianus.[13] Proclus, who was notable for his industry in keeping alive the Platonic tradition as he understood it, wrote commentaries on Plato and Aristotle. Because of his mastery of logic, his systematic spirit, and his fruitful work as a teacher and writer, he has been compared with Chrysippus. Benn thinks he might have been the Cuvier or Laplace of his age; because of his enormous faculty for acquiring knowledge, his rare subtlety in the analysis of ideas, and his unsurpassed genius for systematic arrangement. But he was an ascetic, a believer in the-

[13] See Whittaker, *op. cit.*, p. 158; Benn, p. 358.

urgy, zealous in his quest for religious experiences; and a believer in revelations, sharing the beliefs of his school in superstitions, the Orphic poems, Chaldæan oracles; and he undertook to develop this entire mass of beliefs into a single theological and philosophical system. Zeller compares the result with the systems of the Christian and Mohammedan scholastics.[14] The triadic scheme of developing ideas in their system, later so popular, is the central principle: all things are said to have been produced by this three-fold movement by continued repetition. With Jamblichus, he inserts an intermediate principle between the One and the Intelligible; Life comes between Being and Thought. The Soul is divided into divine, demonic, and human; while the divine is further divided into classes of gods, corresponding to angels, demons, and heroes. The human soul is also increasingly divided, the essential point being a distinction between the principle of unity or divinity in men in contrast with thought or reason. Through this higher principle only can the divine be known, the final object being mystical union with deity.

The Final Greek Philosophy.—Proclus' doctrine marks the more definite transition from philosophy to theology, through the introduction of diverse motives and religious aids, and increasing interest in the supernatural; and thus prepares the way for the Middle Ages. Love and faith now come to the fore as the means of union of the soul with the divine. It is *faith* especially which enables the soul to transcend all reason and attain the illumination which yields that union. Prayer and worship are aids to this faith. Proclus

[14] *Outlines*, p. 350.

also anticipates the scholastics by undertaking in his *Institutes of Theology* to prove spiritual matters which were taken for granted by Plotinus. The idea that the One is *super-essential* later became a favorite conception. Revelation is distinguished from the Christian view by the fact that it is a process within the individual. Mystical union with deity is the supreme happiness, an experience which is made possible through special illumination from above. It is in this mystical form given it by Proclus that Neo-Platonism passes over into subsequent generations, a fact of great significance for the history of philosophy during a very long period. The reform in Greek philosophy made by Plotinus was fundamental and decisive, for it is Neo-Platonism which commands the field, in triumph over the other forms of eclecticism with which the history of Greek thought ends. But it is Neo-Platonism in mystical and Christian forms which actually becomes the great influential system. The final form of philosophy in Athens marked both the decline of Greek philosophy and increasing opposition to Christianity. In 529 the school at Athens where Proclus had taught was closed by order of the Emperor Justinian, and the teaching of Greek philosophy came to an end. Damascius directed the school, 520–529. Ammonius, a disciple of Proclus, renewed the tradition of Plotinus in the Alexandrian school, and took up the commentaries on Aristotle after the manner of Porphyry. Simplicius, also an Aristotelian commentator, was the last of the line. Lesser representatives of Neo-Platonism, in the western half of the Roman Empire, taught the Neo-Platonic philosophy in purer forms derived from

Plotinus and Porphyry. Phases of this philosophy appear in the works of Marcianus Capella (350–400), while Augustine (353–430) draws teachings more directly from Plotinus. Boëthius (executed at the command of Theodoric in 525) is called the last representative of ancient philosophy. In addition to Stoic morality, he taught in his famous *Consolations of Philosophy* an eclectic Neo-Platonism.

Ancient philosophy succumbed, not because of failure to propound a metaphysical system which could be applied in all the fields of the special sciences; but because the times had changed, Christianity as a system of doctrines had come into vogue, and scientific interest in the world had become quiescent. Philosophic interest subsided to its minimum, and many of its teachings were disparaged as "pagan." Yet in the guise of Christian Platonism it survived, and its problems, carried forward, once more came to the fore in other terms. Our history comes to a pause for a time, with the closing of the school in Athens, while we consider the influences which were again to bring it to the fore.

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Part Two

HISTORY OF MEDIEVAL PHILOSOPHY

CHAPTER VI

THE PATRISTIC PERIOD

§ 20. Beginnings of Christian Theology

Christianity.—Originally Christianity was a way of life. In this respect it resembled Greek philosophy in one of its meanings. But it was not a "way" founded on a reasoned view of the universe and an ethical conception of the balanced life, as in the Greek systems. It was a religious mode of life implying belief in God as Father, an idea of the kingdom of heaven on this earth and in the spiritual world; with precepts for daily needs, and promptings to social service which distinguished it from any doctrine primarily concerned with self-culture. Hence its interpretation with reference to the original content of the gospel and the messianic expectations belongs elsewhere.

Yet Christianity very early began to receive doctrinal formulation, as Paul understood it, even before it became known to the world as recorded in the gospels which we possess. The great apostle knew Greek thought as a philosophy to be met on its own ground. The more ardently the early Christians desired to convert the learned world, the more they saw the need of

formulas to meet men trained in philosophy. The gospels and epistles contained propositions of a theological type which could be brought together in systematic form, as the sayings of Pythagoras were developed by his followers, or as Plato interpreted Socrates. The Christianity which was intellectualized to educate the world was formulated from these interpretations of the latter part of the first century and of the second, further systematized by the early Fathers of the Church, educated in knowledge of Greek philosophy. We are directly concerned with the history of this doctrine on its formal side, not with religion save as its teachings imply a philosophical mode of life; not with Christian institutions save so far as the Church, by imposing its authority, limits and uses philosophy: but with a theology which dominated human thought for hundreds of years.

Forerunners.—In the foregoing sections we have noted the fact that philosophy, already a way of life in the original Pythagoreanism, with religious values and Orphic views of the soul in its estate on earth, became explicitly a religion of duty in Stoicism, and sought to meet all needs of a theory of salvation in the religious period. Under various guises philosophy continued to offer what purported to be a complete substitute for Christianity during the last centuries of eclecticism, even to the extent of offering a doctrine concerning miracles, and pointing to Pythagoras or Apollonius of Tyana as a savior of the world. Neo-Platonism held greater sway than any other system, but not so much as the Platonism which brought Greek idealism to a

conclusion as the Platonism which, assimilating manifold doctrines then current, was about to bear results in Christian mysticism, with increasing emphasis on the less rational elements of thought which it contained. Plotinus sought to overcome dualism in the systems of Plato and Aristotle. But it was just this dualism between an earthly world of perishable things and a heavenly world of what was permanent which appealed to early Christians. Plato had described a state which seemed too ideal for this earth, and this ideal found new formulation in terms of the Christian "City of God." The Stoics had tended toward benevolence, and needed a more explicit teaching concerning social service. In general the philosophic doctrines could be re-interpreted so that to the early Fathers they seemed divine forerunners of Christianity. The way had been in large part prepared for this kind of interpretation by Philo, who speculatively accounted even for Plato on the assumption that Plato had borrowed his insipration from Hebrew sources.

Moreover, there had been in Greek philosophy a quest for a sure method of union with God, also teachings concerning the fallen estate of the soul which apparently needed precisely the doctrine about man's alienation from God through sin which Hebrew religion offered. Therefore Christianity seemed to come not to destroy but to fulfil, by eliminating the idea of successive re-births in the flesh, and enlarging upon the idea of purification to include a complete plan of salvation. There was need too of a doctrine concerning God as source of grace, giver of revelations, the

essence of incarnation on earth in the supreme Savior. The thought of Zeus as All-Father was not sufficiently personal, not definitely separated from the idea of cosmic force; so theism came as the corrective of pantheism, showing that all men are sons of God, as spiritual beings, not as products of nature. Again, the idea of a single creative principle, the divine Word, was to take the place of a multitude of formative forces more or less personified; and this Logos was to be identified with the Christ.

The Christian Contribution.—In the process of transition to Christian theology, less emphasis was put on the divine thought, more on the divine love, goodness, mercy. There was an attendant change from interest in favored types of men, worthy of aesthetic self-culture, to interest in the brotherhood of man, with a breaking down of class-distinctions. This change meant that each person, bond or free, ruler or ruled, externally speaking, was to count as one in an inner kingdom where all souls are ideally equal. Hence lowliness came to be esteemed where aristocracy of birth, breeding, and position had been praised before. The change meant that all men could have access to the Father before whom all men are equal through prayer and worship in which inward realities took the place of outward forms. All earthly things and events, powers and potentates, including opportunities for self-sacrifice and triumph over hardship and persecution, took on new meanings. The kingdom of heaven was indeed to be established on earth, and the first Christians anticipated an immediate

fulfillment of gospel prophecy; but this kingdom was to be unlike most political systems. Human miseries were differently interpreted as a result of these changing values. The idea of the solidarity of the race came to be the great conception. The gentler virtues involving humility and self-sacrifice were brought to the fore. The cross became the symbol of the true spiritual life, in place of self-realization as the standard. The little child and the sufferer became the ideal types, where formerly interest centered in the wise man's ideal. Persecution was regarded as a sign of the power and truth of the new gospel. The new conception of personality implied not only new values assigned to the individual on all social levels, but a personal conception of immortality, and a view of the personality of Christ. Asceticism and mysticism came to their own as natural expressions of what the Christians took to be the significant inner life of the individual. Asceticism had long been recognized as of value in attaining freedom from fleshly conditions as portrayed by the Pythagoreans, there was an ascetic element in the teaching of the Cynics, and asceticism became a prominent part of Neo-Platonism as fostered by Porphyry; hence Greek and Christian influences readily mingled in the development of the asceticism and monasticism of the Church. Mysticism as a doctrine as readily came into vogue in Greek and Christian terms, by way of formulation of mystical experience, the beatific vision of saints and martyrs. Plotinus had prepared the way for widespread acceptance of the inner life of the soul as the starting-point

of thought. Consciousness was being discovered as some of the modern philosophers were to regard it. Christianity tended to foster self-consciousness, and thus to lead from the cardinal virtues of the Greeks to the theological virtues of faith, hope, charity (love).[1]

The Formal Element.—In a profound respect Christianity emulated Greek philosophy, instead of imposing its own psychology of the will or love, that is, by adopting intellectualism as its greatest instrument. To meet the increasing need of converting educated men there was a demand for authority, and this authority was invested in a theological system to be established by appeal to revelation, given once for all in an epoch that had closed. Hence in time came not only the Church in the full vigor of priestly authority, but also the canon of scripture, together with the condemnation of heresy, and eventually the imposition of dogma to be believed *because* the Church taught it, not because of a primary appeal to reason. The subtleties of the intellectual life were developed to the full in the defence of doctrine, so that orthodoxy everywhere became the test; whereas in the original gospel the appeal had been to the heart or a certain mode of life in which conduct rather than doctrine prevailed. Heresies were unwittingly taken over with Greek, Persian, and other teachings; and when, little by little, these alien doctrines were discovered, orthodoxy meant the adverse criticism of these doctrines, as well as

[1] On the ethical content of Christianity, see Leighton, *The Field of Philosophy*, p. 167; Sidgwick, *History of Ethics*, Chap. III.

"apology" or authoritative rationalization of the gospel: the systematic development of formulas as the Greek and Latin Fathers understood them. Hence the Fathers were able to show what logically followed from their premises in a scheme of things more and more remote from anything like scientific interest in the world, if not widely remote from the original gospel as a mode of life. *Consistency of doctrine* took the place of consistency in living by the essential gospel. Parallel to the development of the doctrines as those in authority discussed them among themselves, formulating them in the creeds, branding one heresy after another in the councils, was the *didactic element* organized into the schools, the universities and churches, and made the basis of the whole educational system.[2] Christianity became and in a sense has remained essentially a doctrinal system. With the Reformation came still other doctrinal formulations to compete with those already made authoritative beyond all appeal. When, in the second period of Scholasticism, a psychology of the will came once more into view, it was regarded as heresy. When the mystics appealed to inner experience as evidence of the immediate realities of religion, they too were denounced as heretics and their psychology was put aside. So strong was the hold of intellectualism that even with the coming in of another psychology in the last quarter of the nineteenth century the formal element prevailed.

[2] See Monroe, *History of Education*, p. 233, foll.

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§ 21. Gnosticism. The Apologists

Gnosticism.—In contrast with the early expositions of Christianity centering about faith and love, the Gnostics undertook to transform faith into knowledge (Gnosis). Their teachings were derived from

Philo, Plotinus, and a so-called esoteric phase of Christianity assumed to be the true essence of the new gospel. Paul had spoken of Gnosis as higher knowledge which is to be taught to initiates, and there seemed to be a connection between the Fourth Gospel and current speculative religion. The Gnostics undertook to make explicit this common symbolical meaning.[1] The New Testament was turned into allegory in much the same way as Philo had interpreted Judaism. The Old Testament was set aside, and Christ was regarded as one among superior spirits who had entered the body to free mankind from carnal bondages. Creation was explained as an emanation by means of numberless "æons," which took the place of the Platonic Ideas; and "a final return of all things to God by a universal redemption." [2] By the aid of asceticism the devotee of the esoteric doctrine was to become a "pneumatic" or free being. The prime result of this teaching was a movement unfavorable for the most part to Christianity. Gnosticism was chiefly taught by Cerinthus (115 A.D.), Saturninus of Antioch (first half of second century), Carpocrates of Alexandria, and Valentinus (d. about 160).

The Apologists.—Because of their radical departure from scripture as understood by the Christians, the Gnostics were regarded as heretics; hence the need of orthodoxy in the Christian world and of apologists to defend the faith. Prominent among the apologists

[1] Inge, *Christian Mysticism*, p. 81; *The Philosophy of Plotinus*, Vol. I, p. 103.
[2] Turner, *His. of Phil.*, p. 219.

were Justin Martyr (100–160), Athenagoras (d. about 180), Irenæus (140–202), Hippolytus (d. after 235), Minucius Felix (second century), Tertullian (160–240), Cyprian (200–258), Clement of Alexandria (d. about 217), and Origen the Christian (185–254). The first undertaking was the defence of Christianity against Gnosticism and other heresies; the second was the founding of catechetical schools for the systematic exposition of the new doctrine, and the production of doctrinal treatises. The first of these schools was established by Pantænus, a former Stoic, in Alexandria, in 180. Justin Martyr, who studied the chief Greek philosophers before he accepted Christianity, is typical of the tendency of thought which led to Latin theology. He did not condemn philosophy, but maintained its continuity with Christian doctrine in terms of the essential Christ as the eternal Word manifested among many races. Revelation is potential in humanity, God revealed himself to the Greeks as well as to the Hebrews, and the pure Logos was revealed in Jesus Christ. Clement, who presided over the school in Alexandria 190–203, was a Greek, and thoroughly acquainted with Greek philosophy, which he vindicated as a preparation for Christianity. The tuition of the race under the guidance of the immanent Deity was his central thought, with special emphasis on the Logos, and reasoned belief in the structure of the Christian faith. He claimed not only Plato, but Socrates, and Heracleitus as Christians before Christ, as recipients of divine wisdom. Clement is the first Christian writer on mystical theology. For him the true Gnostic is the

ascetic, whose power is acquired by mortification and contempt of the world; self-conquest leads to contemplation: God is to be attained by faith and abstraction, by grace through the Son. The Second Person of the Trinity has much the same attributes as in the prologue of the Fourth Gospel.[3]

Origen.—An Egyptian by birth, Origen (185–254), pupil and successor of Clement, was the most learned of the early Fathers and the greatest leader of the Alexandrian school. He inclined toward Neo-Platonism more than toward any other philosophy, and sought to bring the world and God into closer unity. His doctrine of the eternal generation of the Son expressed this conviction that God everywhere and in all times communicates with men. He adopted Plato's doctrine of the fall of the soul without believing in reincarnation. He regarded the indwelling Logos as the real agent in sanctification. Adopting the allegorical interpretation of scripture, he taught that scripture has two senses, the plain and the hidden, the latter being known only by grace of the Holy Spirit. To possess knowledge of the flesh, the soul, and the "pneumatic" element of scripture would be to grasp its science, in relation to intimate knowledge of human nature. There are historical impossibilities in scripture: there could have been no days before the creation of the stars, and there are precepts which are not to be followed. It is the "pneumatic" element which runs through scripture as a whole, not the "fleshly" element. Origen is credited with destroying Gnos-

[3] Inge, *Phil. of Plotinus,* Vol. I, p. 100.

ticism by substituting a Christian Platonism.[4] As the first scientific critic of the scriptures he exerted an influence through many generations. He was among the first to declare that God created the world out of nothing, and to him is attributed the formulation of the creationist theory, after his day the accepted Christian view.

In general, the apologists refuted heresy by assimilating Greek philosophy, Hellenizing the gospel, and creating the dogmas which were for ages to dominate Christianity. Their philosophical training is disclosed by their view that God as First Cause is rational; hence that the same reason (Logos) is in the universe and man, is the ground of revelation, therefore the principle of union. This reason is personified as a second God, in essence one with the first, but intelligibly distinct by virtue of the incarnation of the Logos, and belonging with the other emanation known as the Holy Spirit. The Christian conception of man was harmonized with this rationalism by a doctrine of the free-will of man and a fall from grace. Christ came to redeem man from his fallen state, by the divine grace and the revealed Logos. The doctrine which for the Fathers implied a metaphysical conception of the Trinity became for the simple Christian a trinity of Persons. For the learned and the plain man alike there had arisen a great question concerning the real nature of Christ in this trinity of divine principles.

Heresies.—Manicheism, founded by Mani (about 240–280) involved a return to the Persian mythology

[4] Cf. Inge, *ibid.*, p. 103.

of two powers, good and evil, at warfare in the world and in man.[5] Thus the problem of evil was brought to the fore, with the implication that, as man's nature is dual, there is need of redemption. Matter, in this view, is the cause of evil; there is in man no freedom of will as a means of escape; but in addition to man's soul, regarded as animating the body, there is the World-soul (Christ) of whom man is a part, and in this Soul of Light lies the possibility of triumph over evil. Arius, who was trained in Antioch, introduced a type of thought radically different from that of the apologists. God now becomes absolute and incommunicable, cut off from contact with the world. Since union with Deity is impossible, there is need of a mediator, Christ, who in this doctrine becomes a unique supernatural being, of a different essence, standing midway between God and man, but still leaving the divine and the human separated.[6]

The question which most sharply divided the various groups of Christians was that of the real nature of the Logos. The Neo-Platonic solution favored by followers of Origen was a way out of the difficulty which seemed to take from the Person of Christ, and among some of the Platonizing Christians there was a marked tendency to polytheism. Athanasius, born in Alexandria, 296 A.D., wrote a treatise against the Greeks and on the incarnation in which he raised the great issue between Christianity and polytheism, dispensing with the idea of intermediaries, and insisting

[5] Turner, *op. cit.*, p. 219.
[6] See Leighton, *op. cit.*, p. 170.

that God dwells in creation. The Stoic doctrine of the divine immanence leads the way for the nearness to man of the Logos, hence for the solidarity of the race, and for likeness of substance between the Son and man in the incarnation. The Council of Nicæa, 325, brought together the Arians and the Anti-Arians, who were to be led in the period that followed by Athanasius. According to the Anti-Arians, Christ is a begotten Son of God, of one substance with the Father, the Logos being a complete incarnation, and the Holy Spirit also of the same substance. Their doctrine now becomes orthodoxy, the Nicene creed becomes the standard, and the way is prepared for the controversy which separated the Greek from the Roman Church. Meanwhile Greek philosophy lives on in the Neo-Platonism with Christian variations which was chiefly due to Origen.[7]

Pseudo-Dionysius.—Mysticism as an authoritative doctrine in Neo-Platonic guise found its way into Christianity through the writings of a certain Dionysius, confused for ages with Dionysius the Areopagite, judge of the Areopagus in Athens when Paul appeared, who was converted to Christianity, was regarded as the first bishop of Athens, and said to have suffered martyrdom about 95 A.D. These writings, ostensibly Christian in doctrine, and attributed to the Areopagite (hence their authority), contained teachings referred to a certain Hierotheus, highly praised by pseudo-Dionysius as a master teacher. At the end of the fifth century they became an authority in East

[7] On the significance of the Trinity, see Leighton, *ibid.*, p. 171.

and West, and their author was long regarded as chief among apostolic Fathers. The man who fostered this "pious fraud" is said to have been a native of Alexandria, a disciple of Origen. By some scholars he is said to have derived his Neo-Platonism from Jamblichus, others refer his teachings chiefly to Proclus. The significant fact is that these writings, produced several centuries after the apostolic period, contain a mixture of Syrian and Neo-Platonic mysticism very acceptable to Platonizing Christians of a mystical turn of mind; for they give influential expression to the transcendence of God as "supra-rational Unity," an Essence which is above all essence as "Indetermination" or "Unspoken Word," by emphasizing the mystical ascent of the soul to union with deity. What becomes fixed in doctrinal thought is not the profound rationalism of Plotinus, but the idea of "emanation" from deity, and the three-fold way of preparation through purgation, contemplation, and ecstasy (union). Thus pantheism becomes a logical conclusion. It seemed rational to some of the Fathers to adopt the idea of emanations or "processions" of divine principles as a way to unify Christian doctrines which otherwise implied separateness of things human and divine. Since God became by this view an ineffable but bare unity, the *via negativa* of thought and life was the paramount interest, although this is in verity "the great accident of Christian mysticism." [8] The mystical ascent is described in terms which persisted for ages as the "entry into the night which is

[8] Inge, *Christian Mysticism*, p. 114.

brighter than light," and the "ray of divine darkness" becomes the classic terminology. Through Erigena's Latin translation (850) this Dionysius became known from the Tigris to the Atlantic; and his *Mystical Theology,* the chief influence in fourteenth century mysticism, was translated into English, and continued to be widely influential.[9] It is to be noted, however, that Neo-Platonic influences also came into Christianity by way of Victorinus, said to be the author of the Latin translation of the *Enneads,* regarded by some scholars as the real link between Plotinus and the mystics of the Latin Church. The influence of Plotinus on Augustine has not always been recognized.

While some Christians were responding to this mysticism, an influence which extended to Hugo and Richard of St. Victor, to Eckhart and Böhme, and even to Bruno, others gave first thought to the problem of the two natures of Christ. To yet others the great problem was that of original sin and the fall of man, implying belief in free-will. Pelagius, the monk who went to Rome in 400, objected to the doctrine of original sin on the ground that, as God is good and has created only what is good, man's nature cannot be radically evil. Sin then is due to the fact that man, endowed with free-will, chose evil when he might have chosen good. The controversy fostered by the Pelagians brings us to the time of Augustine, who formulated the issues in terms of the first highly organized system of Christian doctrine.

[9] Underhill, *The Essentials of Mysticism,* pp. 135, 143.

§ 22. Augustine

Life.—Aurelius Augustinus was born in Tagaste, Northern Africa, in 353. His father, Patricius, was a pagan; his mother, Monica, who profoundly influenced his life, was an ardent Christian. In his student period in Madaura and Carthage, he lived a dissipated life, which gave him the intimate acquaintance with sin which he analyzes in his *Confessions.* While a teacher of rhetoric he investigated Manicheism, then turned to Scepticism, and later to Plato and Neo-Platonism, from which he received an impulse to rise from his moral degradation. The prayers of his mother and the sermons of Ambrose, bishop of Milan, brought him to Christianity. Baptized in 387, he conformed to monastic rules for three years, was ordained, and in 396 became bishop of Hippo, in Africa. He devoted the remaining years of his life to the active development and promulgation of Christian doctrine, and died in 430. Chief among his works are *De libero arbitrio, De Civitate Dei, Confessiones,*[1] *Retractationes.*

Augustine was strongly attracted both by Greek philosophy in its various Platonic forms, and by Christianity which, through his own experience, appealed to him both as a religion and as a body of doctrine to be made more explicit. He had the genius to formulate Christian philosophy as it was adhered to by many generations. His conversion, first by the

[1] Tr. by Pusey, 1909. See McCabe, *St. Augustine and His Age;* Windelband, *His. of Phil.,* p. 276, foll.; Thilly, *op. cit.,* p. 147, foll.

moral appeal of Plato's doctrine, then by the inner quickening of the gospel teaching, yielded the inner certitude necessary for a Christian theory of knowledge.

Theory of Knowledge.—His starting-point is not merely the sure conceptions of God and the soul as spiritual realities, but with the no less certain fact that human consciousness exists, as the clue to be followed in all philosophical analysis. Academic scepticism had yielded only probability, while inner experience as now interpreted discloses immediate certitude.[2] Probability implies indeed such certitude, otherwise there would be no truth. Even if one should doubt the deliverances of the senses, one would still possess the secure fact of one's own mental states, the reality of which is not dependent on outward things alone. Doubt implies a doubter, whose demand is not only for truth as such, but for truth as essential to happiness. The human mind is constituted for such truth, which, potential in us, can be brought into actuality by study of the inner life and by contemplation, with purity of heart and the practice of virtue. The increasing purity of heart which enables the mind the more clearly to perceive divine truth, accords with the higher intellectuality which lifts the mind from merely sensuous knowledge to insight into logical laws, the beautiful, and the good. In short, the mind possesses the requisite conditions of knowledge, the ultimate source of which is God. As absolute, immutable, omnipresent goodness, beauty, truth, God is the stan-

[2] Windelband, *op. cit.*, p. 276.

dard in whose light we see light. God is the source of truth both in our reasonings and in our contemplation, our analysis of self-consciousness and the illumination which discloses the glory of God. The Word of God contains the unchangeable essences, the archetypal forms by which all things were made. Man could not know these essences unless they first existed in the mind of God, and unless God had endowed man to know them. The highest knowledge is co-operative, since God acts with the human mind in rendering explicit or actual what was implicit, and such knowledge is knowledge of God. Man indeed lacks complete knowledge of God, in this earthly life, and God, in incorporeal and changeless essence, transcends all relational thinking. But for Augustine the religious idea of God as the object of worship coincides with the philosophical idea of God as the source of knowledge; and in the idea of *personality* we have a guide alike to knowledge of man and to knowledge of God. Faith in divine revelation is also a source of knowledge. In contrast with the "I believe, because absurd," attributed to Tertullian, Augustine's declaration is, "Understand that you may believe, believe in order that you may understand." Faith is needed to arouse the mind to its capabilities, intelligence for the understanding of what the mind believes. What we cannot yet understand we can accept on the authority of the Church. Divine truth is as certain and objective as were the Ideas for Plato.

Theology and Cosmology.—Augustine takes his clue to the thought of God from the Neo-Platonic

emphasis on the divine absoluteness, majesty, unity, transcendence, as the immutable source and basis of our knowledge. The teleological argument for God's existence is a sure means of approach. So too is the argument from the testimonies of conscience. We strive for the good as well as for the truth, and neither goodness nor truth would be possible were not God existent as the condition of the moral and intellectual life. The fact that God is above our poor language, with its faulty predicates and categories, is no reason for putting him afar from us, or questioning our knowledge; it is rather reason for humility. The teleological argument involves the conviction that God designed from all eternity to create the world. Creation was out of nothing, that is, there was no pre-existent stuff out of which the world was formed: matter began to exist with the beginning of time, and it was *created,* it did not proceed from the divine substance by emanation. The world was created because God *wished* to make it (*quia voluit fecit*). God himself is timeless and without space. There was no space as such in which the world was created. Creation was a temporal process, of which the six Mosaic days were orders or grades of perfection; and although the world-process is continuously sustained, its forms and creatures are perishable.

God as omnipotent is the cause of all things, but not the creator of evil as we understand it. Evil is permitted to exist in the sense only that some things are less perfect in the gradation of descent from the divine goodness. Everything in creation has its place

in the divine purpose, since God wills all things for the best. Evil is not essential to goodness, but is rather its privation. Only moral evil is opposed to the divine will, and such evil is attributable to the free-will of man or to fallen angels. The evil will is defective, the worst instance being alienation or turning away from God. God foresaw that man would fall into evil; and, by permitting it, and turning it to good, provided a fitting punishment. The primary consideration is the omnipotence and goodness of God, with moral responsibility put upon man, in a scheme of things which ultimately redounds to the divine glory.

Psychology.—The body is no longer regarded as the prison-house of the soul, and the theory that the soul is an emanation from the divine substance is also set aside. Without explaining how or when the soul came to be, Augustine starts with the idea of it as originating in time, yet as immortal. The soul is simple, immaterial, without extension in space, distinct in essence from the body; the directing and forming principle or life of the body. The soul is imperishable because imperishable truth dwells in it; it is one with reason, and the principles of reason are immortal; and it not only possesses life but *is* life: to assert that it could be deprived of life would be equivalent to saying that life is not life, or that the soul is not the soul. The ideas with which the soul is equipped are not those of mere pre-existence or reminiscence, but are divine endowments; for God established in the soul the essential principles and norms of reason and

will. In a profound sense the soul is passive or contemplative rather than active; since it receives its moral and religious notions through the agency of the Holy Spirit.[3] Body and soul exist in the most intimate relationship, but the power of action resides in the soul only. Sense-perception, appetite, imagination, and the sensuous memory belong on the lower level; intellect, will, with intellectual memory, belong on the higher, as faculties of the spirit. Fundamental emphasis belongs on will; since it is will which moves the intellect to action, which spurs faith on to give meritorious assent, while free-will is the proximate cause of moral evil.[4] It is not then insight which leads in the appropriation of divine truth, but a volitional act in which faith is a forerunner: faith dictated by the good will, faith in revelation prior to the understanding of the content of revelation. Will is not only present in all states of the soul; as assent, decision, or choice, proceeding independently of the understanding, it is central in the act of freedom, that is, free-will is not conditioned by intellectual motives, but it determines these. Augustine qualifies his doctrine of the undetermined will however in so far as the teaching of the Church, to which he here assigns first place, compels him to postulate the sinfulness of the will to account for the fall and the idea of redemption. As a philosopher he might have reasoned otherwise. As a theologian he restricts free-will to Adam, through whose fall all men sinned. The

[3] Weber, *op. cit.*, revised ed., p. 151.
[4] Windelband, *ibid.*, p. 282.

abuse of freedom on Adam's part brought corruption, so that man is no longer capable of good in his own strength or freedom. The result, as Augustine passes from psychology to theology, is the doctrine of predestination, namely, the will of the individual has neither metaphysical independence nor spontaneity of action, but is determined either by man's corrupt nature to sin or by the divine grace toward good.

Ethics.—The highest good is union with God through contemplation or spiritual vision. This union cannot take place on earth, but is reserved for the future life. On earth man's duty is to obey divine law and prepare for the great happiness which is to come. It is the soul's high destiny which gives life and purpose to moral good here below, in the practice of virtue. Love toward God and man is the highest motive. Through love for one's fellowmen charity comes into expression, and charity in turn is the basis for the other virtues, wisdom, courage, temperance, and justice. The divine grace is the efficiency of the moral life, while faith, hope, and charity as Christian virtues stand above the cardinal virtues, taken over from the Greeks by Ambrose.[5] The love of God is the source of all true love of self and of others. As the work of divine grace acting from within, this love is the highest expression of the mystical process of the sacraments. On the one side is the Church on earth, with its opportunities for service in man's temporal life. On the other side is the community of the elect who have no home on earth. Earthly states are

[5] See Sidgwick, *His. of Ethics*, p. 133.

based on self-love; in the City of God love toward God prevails. Temporal states have ethical value in a subordinate way, but as means to the higher good, which is vested in the Church as supreme in authority, infallible, visibly representing the kingdom of heaven. Because of his assimilation of the idea of a perfect kingdom, too pure to be embodied in earthly states, yet approximated by the Church on earth and attaining completion in the life beyond, Augustine has been called the Christian Plato. His idealistic synthesis is a remarkable achievement, despite the conflict between his philosophic argument and his theology. His *De Civitate Dei* unfolds the law of progress in the spiritual history of the race. Human life is a struggle between two loves or two worlds, the kingdom of this world, with its evils, and the realm of grace, with the quickening love which inspires love toward the neighbor and toward God in the heart of man. The supreme event in the earthly kingdom is the period which began with Christ, through whom the divine grace was bestowed. On earth there is struggle always between the two loves. In heaven there will be peace for those lifted by the divine grace into the eternal contemplation of God.

Augustine's experience had made him vividly aware of the conflict between the two loves. His idealism, which has been said to anticipate Malebranche's *vision in God* and Schelling's *intellectual intuition,* might have led him directly to modern philosophy, beginning with Descartes' *cogito ergo sum* (I think, therefore I am). So too he might have based his ethical ideal-

ism throughout on the postulate of free-will. It is the intervention of doctrine which prevents him from developing the thought of the inner light to the full: Augustine finds this light obscured in the race by sin as indeed his own life had shown what results from such obscurity. As he himself would never have known salvation from evil without the divine grace, so indeed for other men the incarnation was necessary, and the incarnation adds a surpassing element of thought which Augustine found lacking in Greek philosophy. True to the natural history of his own conflicts to the last, Augustine teaches that God by election saves some, while others are predestined for damnation, even though by holding resolutely to this dogma he is inconsistent with his conviction that the essence of the divine will is absolute goodness. This struggle between faith and reason, so sincerely disclosed by Augustine, continues through the scholastic period until reason once more wins the right to follow wherever its own profoundest implications may lead. By developing the idea of the Church as the kingdom of grace, Augustine made the Church clear concerning her own riches and her own field. The faith of the Church was completed in such a way as to show that faith is itself identified with the Church, just as human nature was conceived as adapted to the plan of salvation. Thus Augustine became the greatest light in the Church, the one who for ages set the example to all who regarded reason or philosophy as the handmaiden to serve faith by justifying Christian dogma.

CHAPTER VII

THE SCHOLASTIC PERIOD

§ 23. Beginnings of Scholasticism

Changing Conditions.—Primitive Christianity involved apocalyptic visions of a coming kingdom on earth. With the waning of this view, the Church as an organization came into prominence. Meanwhile the conception of Christ had also undergone a change. Originally regarded as Messiah of the chosen people, Jesus was later taken to be the Savior of the world. Then the Platonizing Christians, developing the idea of the Logos to the full, identified Christ with the eternal Logos as the creative and saving principle of the whole spiritual cosmos. This identification was made both in terms of the teaching of Paul and the Fourth Gospel, and in the more explicitly Greek terminology of the early Fathers whose first training had been in philosophy. The Church as the possessor of this doctrine, however derived, became the one great institution. The disappointed hopes of those who had expected an immediate return of Christ gave place to this idea of a universalized Christ as the head of an invisible kingdom, represented on earth by the organized Church. Thus the way was pre-

pared for the long ages of development of Catholicism. Since the Church was to determine what was to be believed, the next duty of rationalizing Christians was to show why the doctrines of the Church are true. This brings us to the period of Scholasticism.

The Patristic period ended with the struggle of Christianity to adjust itself to Greek and Roman culture and civilization. At first there had naturally been an age of controversy, and of defence against heresies; for in the process of assimilating the Greek philosophical ideas which made Christian theology possible, some adherents of the new faith favored Greek rather than Christian thought, while partisans of Neo-Platonism in some of its forms opposed Christianity. But the process of assimilation, having reached a triumphant climax in the works of Augustine, speculative thinking was for centuries to be confined to the limits marked out for it.

The Revival of Learning.—Meanwhile changes had been for some time in process which were to make the world an unfriendly place for philosophy. The Ostrogoths under Alaric sacked Rome in 410; the Visigoths conquered Spain and Gaul; the Vandals overran Northern Africa; the Huns under Attila came in 451; and Rome fell into the hands of the Ostrogoths in 476. With all these invasions desolation came into the Roman Empire as a whole, hence the collapse of Græco-Roman culture. Germanic influences now came to the fore during another long period of adjustment to Christianity, involving not only the

rise of other peoples into power, the development of other customs, but the spread of new languages, the expression of new ideas of freedom, other moral ideals and different conceptions of political life. This period is called the Dark Ages by those who dwell on the decay of ancient culture. It is called the beginning of modern times by those who estimate it with reference to what it produced. However adverse the external conditions, the Church at least was able to survive, and so to preserve moral and intellectual ideals by gradually training the newly acquired peoples. Clovis became a Christian at the end of the fifth century; a slow revival of culture began under Charlemagne; and with the summoning of learned men to court came once more the opportunity for leadership and the founding of schools which in time became centers of a new intellectual movement.[1] In so far as philosophy existed at all, it was entirely limited to the maintenance of ecclesiastical tradition. Yet text-books and commentaries began to appear, and out of growing interest in these came in time distinct tendencies of thought. This stage of development is connected with the names of Martianus Capella (477–570), author of *De Nuptiis Philologiae et Mercurii,* widely used as a text-book of ancient learning; Boëthius (480–525), most influential among learned men for a long period; Cassiodorus (abt. 477–570), author of *De Anima;* Isodore of Seville (abt. 570–636), author of an encyclopedia summarizing all

[1] See Monroe, *op. cit.,* p. 245, on the intellectual ideas of the monastic period.

knowledge reputed to be worth while; and Venerable Bede (674–735). The two important treatises of Aristotle's logic known in Latin translations, *De Categoriis,* and *De Interpretatione,* with Porphyry's *Introduction;* a translation of Plato's *Timæus,* Boëthius' *Consolations of Philosophy,* were the influential philosophical works of the period. Boëthius also translated or commented on various works by Aristotle, Porphyry, and Cicero. Thus interest in logic was kept alive, and Greek ideas were assimilated in Christian terms.[2] The Seven Liberal Arts[3] (grammar, rhetoric, logic, arithmetic, geometry, astronomy, music) came into vogue; and eventually there arose new interest in dialectic, in the problems of metaphysics and psychology. Alcuin (735–804), who appeared at the court of Charlemagne in 781, taught dialectic for eight years in the palace school. Rabanus Maurus (784–856), Alcuin's very able pupil, abbot of Fulda, carried the learning of the schools into northern and eastern Germany. In his chief work, *De Universo,* he taught a wealth of subjects introductory to the scholastic period. He regarded dialectic as the science of sciences, showing how to learn and how to teach. The *doctores* of the Church gradually took the place of the *patres.*

By massing tradition in encyclopedias and summaries, they made possible the interpretation of doctrine. Although philosophy was kept in bondage while unquestioned dogma prevailed, when the schools were

[2] See also titles mentioned by Turner, p. 243.
[3] Monroe, p. 271.

organized, with increasing need for instruction, philosophy had an opportunity to systematize as well as to justify faith. Hence a change from the former assertions, "I believe, because absurd," "God became man," to the propositions and questions of Anselm's time: "I believe in order that I may understand," "Why did God become man?"

Definition.—Scholasticism is divided by some historians into four periods.[4] We shall follow the more customary division into two: the period beginning with Erigena, about 800, called the period of Platonic Scholasticism, in which Anselm and Abelard are leaders; and the period which begins about 1200 with the revival of Aristotle, includes Thomas Aquinas, Duns Scotus, Occam, and extends to the fall of Scholasticism, with the beginnings of the Renaissance. De Wulf defines Scholasticism as the philosophy which was maintained in the medieval schools.[5] It is defined, more broadly, as "the type of intellectual life, and hence of education, that prevailed from the eleventh to the fifteenth centuries inclusive; that was largely responsible for the origin of the universities . . . that produced a vast literature; and that possessed very distinct characteristics of its own which mark it off from modern intellectual life."[6] It is thus understood with respect to its attitude of unquestioned obedience to authority, its dependence on formal truths or dogmas, its antagonism to doubt or inquiry; the fusion

[4] Turner, p. 239.
[5] *Scholasticism Old and New.*
[6] Monroe, p. 292.

of theological and philosophical content; the forms imposed upon it by acceptance of the Aristotelian deductive logic; and its method of logical analysis. In form, method, and content it is the system or authorized philosophy of the Church. It is a philosophy of religion, assuming its starting-point, subject-matter, and goal within the confines of the Church, and therefore limited by belief in revelation. It does not make reservations in favor of free investigation of nature, for nature in the scientific sense has practically ceased to exist. There is no separate field of interest in secular history. The doctrinal content of Christian faith being taken for granted, the effort is to deduce the consequences which follow from dogma, when dogma has once been explained and justified. The great problems are: the relationship of faith and reason (revelation and philosophy), the realm of grace and the realm of nature, the meaning of universals, the primacy of will or intellect, and the nature of individuality (the problem of individuation). The first period looks back to Plato and is engaged in formulating a positive theology, by enlisting the prevailing controversies even when these seem to run out into dry disputations. The second, by admitting Aristotle and encouraging nominalism, with its liberalizing tendencies, prepares the way for modern thought, and has been described as the age of modern science in embryo. The great issues in both periods turn about the question of authority, now that Rome has become the spiritual centre, with a powerful organization reaching out into the fields of politics, education, literature, art, as well as possessing

the fields of philosophy, religion, and morals. Reason had seemed to be the authority, with no institution to impose restrictions. But reason was now fostered to carry the idea of ecclesiastical authority to the limit, even in the struggle of the Church to become in all respects supreme over the State. There appeared to be no sphere left for the pursuit of truth for its own sake, as indeed the salvation of man was limited by the very idea of man which then prevailed. To follow Scholasticism in all its phases, however, is to realize how difficult it is to encourage dialectic and the analysis of the inner life without breaking free from tradition. For the schoolmen were experts in definition and analysis. They were always engaged in controversy. And any of the controversies, notably that over will and intellect, was likely at any time to lead outside the confines of dogma. This state of tension was notable in Augustine's two-fold process of thought, and in Augustine as in the schoolmen the contrast between what faith decrees and what reason implies centres about the primacy of the inner life. Eventually the will is bound to be more than the "will to believe" what dogma permits. The self was for the most part engaged in rationalizing the realm of grace during the scholastic period. But with a philosophy of the rediscovery of nature came recognition of additional phenomena to be rationalized, also freer scope given to reason, and the will to follow where reason might lead. The Church had heresies to condemn all the way along. Aristotle's treatises on physics were condemned in 1209, and his *Metaphysics* in 1215. But so swift were

the changes already in process that in 1250 public lectures on Aristotle were permitted in Paris; by 1300 Aristotle had become the great authority in the Church, the "precursor of Christ in natural things," and the way was soon open for the study of nature in Aristotelian terms, preparatory to passing beyond the Aristotle of the scholastic period.

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Consult: De Wulf, *History of Medieval Philosophy;* Turner, *op cit.,* p. 237; art. "Scholasticism," in the *Brittannica;* Thilly, *op. cit.,* p. 158; Monroe, *op. cit.,* p. 292, foll.

§ 24. John Scotus Erigena

Life of Erigena.—The founder of Scholasticism was John Scotus Erigena, born in Ireland about 810, and died about 877. Educated in the Irish schools, Erigena was called by Charles the Bald to his court in Paris, and was made head of the palace school. Later, he is said to have gone to Oxford at the invitation of Alfred the Great, though little is known about his life after he left Paris. He was a greater scholar than Alcuin or Rabanus, introduced the study of Greek, and made known the learning of the Greek Fathers. His philosophy was put forth in the *De divisione naturæ,* in which he combined Christianity with the expression of Neo-Platonism which he found chiefly in the writings of pseudo-Dionysius, whose works he was ordered to translate. He is associated in history with this translation, and his own re-statement of the theory of emanation.

Idea of God.—For Dionysius, as we have seen, God is an Essence above all determination, beyond reason and the uttered Word. For Erigena, also, God is the beginning, middle, and end of all things; without distinctions, without limit or measure, pure essence. The world, divided and limited, is the explication or manifestation of God. From God as source of all power, light, intelligence, all things have proceeded by emanation. First came the Logos or creative principle; then creatures without creative power of their own, dwelling in space and time; and finally an ultimate state of creation in which all these deings and things attain their end and become re-united with God. This "division of nature" involves a type of pantheism: nature as God is uncreated creator or "uncreated creating" principle (*natura creans*), and the world is an expression of divine being. Ultimately speaking, God and his creatures, his world of manifestation are one; any reference to God as separate from his creatures is a figure of speech only. Since God is above all predicates, and hence to be described negatively by symbols, it cannot be said that God knows himself, or that any other category of figurative thought is applicable to him. So far, God is incomprehensible, above substance, above goodness. It cannot then be said in strictness that there is a second divine being equal with the Father, a twofold divine nature, or a twofold choice of grace. Even the communion with God in the visible Church, the presence of Christ, and the final glorification or re-union are figurative. But Erigena has a twofold theory of theological predi-

cation. Granted this, the negative aspect, there is also an affirmative aspect, and metaphorically it is permissible to say that God is substance or goodness. Thus it can be said that the Invisible is manifest in the visible, Unity appears as divided, and the universe as a whole is a "theophany" or showing forth of the divine nature.

Theory of Knowledge.—This conception of an emanation or "flowing forth" from God and a return to him has its correspondence in all knowledge. There is a process from higher to lower by which intuitive knowledge proceeds forth to a knowledge of primordial causes and concrete things, and also a process from lower to higher, culminating in knowledge of the divine. At the top, in this ascending scale, is mystical exaltation or contemplation of the divine nature in a transcendence of both sense and reason in which the soul attains union with God. Although this process involves profound self-knowledge, it cannot be said that the soul knows its own essence. We know that the soul *is*, as indeed we know that God is. But to define what the soul is would be to pass beyond it, and this we are unable to do. But implied in the soul's essence is intellect, and by developing his rationalism in realistic terms Erigena became profoundly influential.

Realism.—Although the Christian faith yields its dogmas as the sources of true religion, possessing an authority to be defended, faith is rational, theology and philosophy are one, and the dogmas are to be rationalized to the full. The result is the theory of

universals which presently found place in an age-long dispute over the reality of universals and the place or reality of individuals. As God, above all essence, contains within himself the Logos, the creative archetypes, which go forth into expression, so, formally speaking, the universal is the original reality which produces from itself all species and the particulars or individuals which embody them. That is, the universal both produces and contains the individual. The universal as Being (*res*) is most real. Things are the more real in proportion as they are universal. That is least real which is farthest removed from the universal. All things are to be understood in terms of this *egressus* (graded scale of descent involving a logical pantheism) and of their *regressus* toward Being (*esse*). Universals then have real existence. They are essences appertaining to the intelligible world, the world of Ideas existing in their hierarchy. A universal is objectively real. In this scale by which one thing (*res*) is higher than another, God is absolutely real, *ens realissimum.* The scale of reality also coincides with the scale of perfection, as we shall presently see. The philosophy of Erigena anticipates the controversy over universals in part only. His thought runs off at times into the allegorical interpretation of scripture. He is well aware of the limitations of all categories of thought, and does not forget that God is super-essential, undefinable. He was too liberal and free to be wholly acceptable, and was inclined to agree with the alleged Dionysius rather than with Augustine. Although he was the most learned man of his age, his

departure from orthodoxy eventually became apparent, and his *De divisione naturæ* was condemned in 1225. He found a place in his system for the fall of man, hence for (relative) evil and sin. But in his scheme predestination means universal salvation or return to God. Since reality is perfection, evil has no substantial existence, and there is no ground for belief in a personal devil. Even fallen angels will return to God. The vision of God is the sufficient recompense for the life of virtue. Mystical contemplation and pantheism receive a certain sanction in this doctrine which later Christians were to reject as heresies.

§ 25. Problem of Universals

Origin of the Problem.—Aristotle's doctrine of the proposition and the categories, translated into Latin by Boëthius, was the text-book in logic till Aristotle's whole theory became known, during the thirteenth century. It was a passage in Porphyry's *Introduction* which gave rise to the problem of universals (the generic and specific concepts which express the fundamental qualities, uniformities, and activities which one object shares with other objects). In brief, it is a question of the objective significance of universals. These concepts may be said to exist either in the world of reality or merely in the mind. Granted that they exist outside the mind, are they then corporeal or incorporeal? Further, do they exist *in* particular sensible things, or outside such things? The problem proved a fruitful one, since it involved the question of

the substantiality of Plato's Ideas and the significance of the Aristotelian forms, hence it had metaphysical as well as logical meanings. If it be said that universals are prior to things (*universalia ante rem*) the most pronounced realism is implied: universals as such are objective realities apart from our minds. Aristotelian realism holds that universals are realities *in* things: there is a potentially universal reality in the mind, although there is a *fundamentum in re.* Again, it might be said that universals are merely names for particular things (nominalism), neither prior to nor in them, but after them (*universalia post rem*). The resulting theory was of moment to the Church, since its authority could best be sustained on a realistic basis, that is, by a hierarchical system of principles. Naturally therefore the Church favored realism, and saw in its own institution in which the pope was supreme a representative on earth of the highest universal. Moreover, Christian teaching had shown the intrinsic worth of human personality, and there was an effort to discover the ground of the individual's existence. Again, the existence of universals as more real than the particulars of sense-experience is highly important for any theory of knowledge which is to avoid sensualism, and for any moral theory which is to find a higher principle of authority than that of mere particulars in the life of feeling. The controversy was in a way a return to the philosophical situation in Greece when Socrates, protesting against the individualism of the Sophists, proclaimed the reality of the class-concept. For Scholasticism it was imperative not only to attribute

greater reality to the Church as universal than to individual institutions, but to establish the universal truth of original sin and salvation in order to have a secure basis for faith. Faith required as its logical presupposition the existence of humanity as species, for unless the universals of faith are true the particular facts cannot be true.[1] The proposition once established that *universalia sunt realia* (universals are unmistakably or substantially real), it is then possible to prove the several doctrines, including the existence of God.

Extremes beget extremes, and when the realism of the early schoolmen had begun to be generally recognized, nominalism was brought forward with its proposition that universals are *flatus vocis* (mere sounds). Aristotle had long before taught that the individual things of experience are the true "first" substances; and since "substance" cannot be predicated in a judgment it seems to follow (according to Porphyry's commentary) that universals are not substances.[2] What then can be said of universals? That the particulars are comprehended under a universal by one name (*nomen*), that is, by the same word (*vox*), which Boëthius had defined as a "motion of the air produced by the tongue." Universals are collective *names,* the "metaphysics of individualism" readily follows, and the field is prepared for the greater triumphs of nominalism of the fourteenth century, and the general breaking down of Scholasticism.

Beginnings of Nominalism.—Eric (Heiricus, 841,

[1] Fischer, *op. cit.*, p. 67.
[2] Windelband, *His. of Phil.*, p. 296.

d. abt. 881), who studied under the successor of Rabanus, at Fulda, and later became master of the school at Auxerre, was the first to teach nominalism in its beginnings. With Aristotle and Boëthius, Eric regarded the concept as the image of the object. Remigius of Auxerre (Remi, d. 904), the first doctor to introduce dialectic into the schools of Paris, where he was renowned as a professor, reverted to realism in favor of a midway position between the doctrines of Erigena and Eric. Gerbert (d. 1003), acquainted with the teachings of the Arabians in Spain and Italy, directed attention to mathematics and natural science, but was looked upon with suspicion. His pupil, Fulbert (d. 1029), organized the school of Chartres, which later became the seat of Platonism in relation to the study of nature. Gerbert acquired his knowledge of Plato from Augustine and the commentaries of Chalcidius. Berengar of Tours (Berengarius, 999–1088) introduced heterodox views by attacking the doctrine of transubstantiation (with reference to the sacrament). Meanwhile the reaction against realism had been growing, and the way was prepared for the heresies of Roscelin (Roscellinus).

Roscelin.—Born about the middle of the eleventh century, died 1100 or 1106, Roscelin was the first to teach an explicit nominalism. His doctrine was that as genus and species have no substantial unity, the union of individuals in the genus or species is solely established by language. Even the idea of the whole and its parts is a product of analysis, for particular things alone exist, and such terms as the Godhead and

the Trinity are merely general notions representing three substances or persons, not a single substance. It follows that all knowledge is knowledge of the particulars of experience. But this conclusion strikes at the root of the doctrines of the Church, and introduces scepticism. Roscelin's interpretation of the Trinity was condemned at the Council of Soissons, in 1092, and Roscelin was obliged to retract. His radicalism afforded an opportunity for the clearer formulation of realism by Anselm.

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Windelband, *History of Philosophy,* Part III, § 23; Lange, *History of Materialism,* Vol. I., pp. 190–209; Weber, *History of Philosophy,* revised ed., p. 171; Turner, *History of Philosophy,* p. 165.

§ 26. Realism. Anselm

Anselm's Starting-point.—Born in Aosta in Lombardy in 1033, Anselm succeeded Lanfranc as abbot of Bec in 1078, and became Archbishop of Canterbury in 1093, the first ecclesiastical prince of England, a position which gave him opportunity to support the pope against the king in the controversy over investiture. He is known as the second Augustine, the ideal orthodox schoolman. With him there is no nominalistic doubt concerning the dogmas, but a strong conviction that the truths of the Church can be made securely rational, proved beyond peradventure. His starting-point is with the reality of God as an incontestable certainty, to be made the more certain or

explicit by means of a proof that God exists. Faith and reason are not then in conflict, but reason, weak and tending to err, is to be illumined by the supernatural light of faith; hence *credo ut intelligam* is now the formula.[1] The example had already been given by Augustine, and the implied method is that of Platonic realism, with the principle that, "the more universality, the more reality." God then as the most universal being is the most real, is absolutely real: *ens realissimum.*

The Proof of God's Existence.—The cosmological proof of the *Monologium* (1070), with its repetition of arguments based on the necessity of a permanent order of the universe in support of justice and goodness, is less important than the ontological argument of the *Proslogium,* long recognized as the typical proof of the existence of God. This argument is as follows: God is defined as the Being who is greater than any other being that can be conceived. The concept of God exists then, namely, the idea of a perfect being. But this perfect being must exist outside the mind; since if it did not, it would not be greater than any being that can be thought. God exists not alone in the mind as an idea of his Being, but as a reality outside the mind to whose essence our thought refers.

This argument is meant to be more than psychological, to be convincing evidence that in thinking of the perfect being as existing we are thinking of a

[1] I believe, that I may understand; in contrast with "I believe, because it is absurd."

being as more perfect than one that is non-existent; since, on the realistic presupposition that universals exist outside the mind, thought is hereby concerned with supreme Reality. But if the critic objects that a concept does not necessarily possess the character of truth, the way is open to doubt that thought must thus proceed. Gaunilo, the monk, contended that by Anselm's method one could prove the reality of anything of which the mind might conceive, for instance, that of an island, if perfection be taken as the certain mark of existence. The most perfect island, if it did not really exist, would be surpassed in perfection by the real island. The flaw in the argument then is the transition from the ideal or conceptual to the real. Anselm undertook to meet his critic, but instead of showing that the idea of a perfect island is not a necessity of thought, he did little more than reaffirm his conviction that the implication of the perfect being in the mind involves its existence in the world of realities. It remained for later critics to distinguish between idea and reality, and to show the value of the argument from necessity to existence.

What Anselm obviously had in mind was the idea of the personal God of Christianity, with its implications in favor of the incarnation and redemption. The more crucial question therefore is, Why did God become man? The answer is that the incarnation was necessary because of man's sin, which is an offence against the majesty of God, and cannot be pardoned without conflict with the divine justice: since man is incapable of giving satisfaction for his great offence, the incar-

nation takes place as a *substitution,* God becomes man in Christ and acquires infinite merit, makes full recompense. Thus Anselm strongly emphasized immutable divine justice expressed through the incorruptible will of God. He reaffirmed realism by contending that the essential nature of the highest reality, participating as it does in universals, can be proved in terms of conceptions. Since the many objects in a class constitute a real unity, the several Persons of the Trinity are one, the members of the human race make one man. It follows that "man is something more than an individual."

Extreme Realism.—The extreme inferences from this position were drawn by William of Champeaux (1070–1121), who held that the class-concept has full substantiality in this world, hence that the universal (man) is present as undivided essence in all individuals. The conclusion is that individual men are mere accidents of the one substance, *flatus vocis* only, differing from one another in subordinate respects, never in essence. Incidentally, it is to be noted that William settled the issue left open by Augustine in his rejection of the theory that the soul of the child is derived from the parents (traductionism), and his consequent acceptance of the view that the soul is created immediately by God (creationism). The objection to his extreme realism is that one substance (man) will then possess contradictory properties. Hence realism must be modified to express the fact that individuals differ in essential qualities.

SELECTED REFERENCES

Anselm left many works, of which the following are most important: *Dialogus de grammatico, Monologium de divinitatis essentia sive Exemplum de ratione fidei, Proslogium sive Fides quærens intellectum, De veritate, De fide trinitatis, Cur Deus homo?* (Why did God become Man?) His chief works, trans. by S. N. Deane, *St. Anselm,* 1903. Consult: Church, *St. Anselm;* Rigg, *St. Anselm;* Rule, *Life and Times of St. Anselm;* brief accounts by Turner, Thilly, Weber, de Wulf.

§ 27. Conceptualism

Life of Abelard.—Pierre Abelard, born in Pallet, near Nantes, in 1079, died in Paris, 1142, studied in Paris under William of Champeaux, and then became his vigorous opponent, the most brilliant dialectician of his time. His career was remarkably romantic and picturesque. He was several times condemned for heresy, notably for his *De trinitate,* consigned to the flames by the Council of Soissons, 1122, and in 1140 he suffered imprisonment for his views. Besides his *Epistolæ,* his works include *Introductio ad theologiam, Ethica, Sic et non,* and *Dialogus inter Philosophum Judæum et Christianum.* In type he is described as a fighting dialectician, a rationalist, who is intolerant of all restraint and authority, fond of displaying his extraordinary talents. This fearlessness led him to dispute any doctrine, although he undertook in his *Sic et non* to formulate dispassionately the principal theses of theology both for and against.

Theory of Universals.—Historians have found it difficult, however, to state his precise position, since he

takes up a stand midway between realists and nominalists. For him the universal has no existence apart from the individual, in whom it exists, not as an essence (as if an individual could exhaust an essence), but as an individual. Yet the universal is plainly no mere *vox* (word), it is also a *sermo* (predicate), hence is to be understood as a concept involving comparison between the contents of perceptions. Our thought, conceiving things in universal terms, therefore passes beyond the mere *nomen,* and by its predications pertains to ultimate reality. The differences of genera and species reside in the things themselves, and our concepts bring out into explicitness the differences and likenesses whereby we express the qualities of really existent individuals. The clear statement of this doctrine would have meant conceptualism, as later formulated; what Abelard actually undertook was to show that universals do not alone exist apart from things (as concepts in the mind of God), but also in things (through likenesses), and after things (in human concepts and predicates).

Liberalism.—A great admirer of Greek philosophy, which he knew at second hand in Augustine's works, he almost passed over to the position that reason is to be followed wherever it leads, even though it conflict with the faith of the Church. He was an ardent advocate of free thought, and in this respect a forerunner, pointing the way through criticism to a higher truth to be won through the comparative method. But Abelard did not possess either the adequate knowledge of Plato and Aristotle or sufficient

scientific equipment to withstand such controversies as those with Bernard of Clairvaux, in which knowledge and faith, reason and authority, science and the Church were brought into sharp opposition; he remained loyal to the Church, and developed its faith in the scholastic spirit. Again, he almost secures for ethics an independent position by pointing out that intention or the good will is decisive, not the rightness or wrongness of the deed, and by emphasizing conscience as the natural moral law common to all men. But as a theologian he finds the basis of the moral law to be the divine will, so that following conscience is obeying God. As our conduct is faulty, manifests error (original sin), so that by consent we express ourselves in sinful deeds; so, in our effort to express the good will, our knowledge falls short, what we should do is often in doubt, and the only resource is to decide as nearly as we can according to the divine command, which, although arbitrary, is to be accepted. What is left to man is free judgment rather than free-will. Whatever God made is good, is the necessary expression of his nature, and to judge in accordance with his creations is to be free from compulsion. Sin is not merely evil will, but contempt of God.[1]

§ 28. The School of Chartres. Summists. Mysticism

Chartres.—Headed by Bernard of Chartres (d. bet. 1124 and 1130) and his brother Thierry (d.

[1] For sources, see Turner, p. 287; Thilly, p. 172.

1150), the school of Chartres was mainly devoted to uniting Platonism and Aristotelianism, as then understood, but also to the reaction against the anti-realism of Roscelin and Abelard. Bernard directed attention to the *Timæus,* the works of the Neo-Platonists, and the problems of metaphysics and cosmology. He distinguished three categories of reality: God, Matter, and Idea. Matter was created out of nothing by divine act, in accordance with the Ideas as prototypes eternally present in the divine mind. Bernard of Tours (Silvestris, second half of the twelfth century), author of *De Mundi Universitate,* was the first to connect pantheism with the teachings of the school, namely, by means of the Pythagorean monad and the Neo-Platonic doctrine of emanation. William of Conches (abt. 1080–1154) became greatly interested in the physical science of the Arabians, as made known in the translations of Constantine the African; and, turning to psychology, he discarded the traditional theory of "forms" mediating between object and subject, and emphasized the physiological aspect of psychological problems. He also tried to localize sight, thought, and memory in three departments of the brain. Gilbert de la Porrée, born at Poitiers (1076–1154), suspected of heresies concerning the Trinity and the incarnation, was eminent as a logician. John of Salisbury (d. 1182) was a pupil of Abelard, William of Conches, and Gilbert de la Porrée. His autobiography, *Metalogicus,* is highly esteemed for its descriptions of the intellectual life of the time; he is the first medieval historian of philosophy. Influenced

no doubt by William of Conches, he became greatly interested in the study of sensation and perception from the point of view of judgment: he anticipated the psychology of the associational school in England.[1]

The Summists.—To this period also belong the Sentences and Summaries of Sentences, or text-books of theology which stated the opinions of various teachers in a manner similar to Abelard's dialectic. Prominent among these Summists was Peter Lombard (d. abt. 1164), called *Magister Sententiarum,* whose *Four Books of Sentences* was the text-book of the schools for several centuries. Hundreds of commentaries were written on Lombard, whose Sentences were read together with the Bible in the theological departments of the universities. Robert Pulleyn (d. 1154), author of *Sententiarum libri octo,* was a teacher in the theological schools of Paris and Oxford. Alanus of Lille (d. about 1203), surnamed *Doctor Universalis,* collected and tried to reconcile the various *Sentences* of his contemporaries.

Mysticism.—The mysticism of this period implies both the *tendency of thought* which we have frequently referred to as an element of Neo-Platonism, and the *doctrine* which begins to receive formulation anew in the twelfth century. There is oftentimes a confusion between (1) mystic experience, and (2) the mystical doctrine or theology, which should of course be compared with any other doctrine. Mystic experience involves the idea of a first-hand or intuitive divine-human intercourse and relationship, "not

[1] Windelband, *op. cit.,* p. 307.

sharply focalized or clearly differentiated into a subject-object state." [2] In this fused consciousness the individual soul "feels invaded, vitalized with new energy, merged with an enfolding presence." This experience is an inner-life event, regarded as "one of the great tap-roots of personal religion." Such experiences found place very early in the Christian era, and the teachings of the gospels, notably the Fourth Gospel, and the Epistles of Paul gave expression to these experiences. The mysticism of the New Testament is however implicit, unconscious, not yet subjected to reflection.[3] What developed out of this tendency of thought was a mystical doctrine containing various elements. The Platonic element was derived either from the philosophy of Plotinus as adapted by Augustine, that of pseudo-Dionysius derived from Jamblichus and Proclus, or a combination of Platonic and Jewish teachings; in any case it was an eclecticism. As a doctrine mysticism involved its own theory of knowledge, with reference, for example, to belief in a "recollective faculty," the "apex of the mind," the "abyss of the mind," the "divine spark," the "hidden Word of God," or the "inner light." On the basis of this theory of knowledge, there was belief in a higher reality, sometimes described as if it were above reason, sometimes identified with the soul, as if the world were nonexistent or confused with the world as if God and the world were one (pantheism). In any case, mysticism

[2] R. M. Jones, art. "Mysticism," in the *Britannica.*
[3] Jones, *Studies in Mystical Religion,* p. 5, n.; Inge, *Christian Mysticism,* Chap. II.

as a doctrine could be brought forward in opposition to any theology which depended solely on the authority of dogma and the Church.

As a doctrine, mysticism began to receive more explicit formulation in protest against the extreme rationalism of the Church, and in favor of a more practical mode of religious life. The scholastics tended to push reason to the limit in their effort to justify all the tenets of Christian faith, and defend these propositions against heresy. For the mystics, however, the immediate experience of the presence of God was of greater value than the dialectic development of ideas referring to God. Hence the place given to contemplation and the "negative way" in Christian Platonism became more extensive, while the sphere of logic decreased. This meant also increasing interest in the soul, with its powers of immediate apprehension of spiritual realities through the "inward light" and the empirical faith which grew out of this theory of knowledge.

Definition.—Mysticism is briefly definable as "the type of religion which puts the emphasis on immediate awareness of relation with God, on direct and intimate consciousness of the divine presence. It is religion in its most acute, intense, and living stage." [4] More briefly, mysticism is definable as practical theology. It teaches the practice of the presence of God through purification and meditation as means to beatific contemplation in its fulness. As a doctrine it is significant because it assigns the higher place to faith

[4] Jones, *Studies in Mystical Religion*, xv.

as supra-rational, as transcending the realm of intellectual conflicts and heresies. Reason is concerned with thought (*cogitatio*) on the level of the analysis of sense-perception and the development of concepts. Meditation prepares the mind to rise above the distractions and limitations of ordinary experience. Contemplation comes as the soul's highest achievement, or rather it is a divine gift bestowed in response to the ascending series of preparatory meditations. As a doctrine, mysticism readily passes over into pantheism, and so becomes as prone to heresy as the dialectic of the schoolmen who departed from the approved realism of the Church.[5]

The Victorines.—Modified realism was in part responsible for the doctrines of the mystical school. Bernard of Clairvaux (1091–1153) was the first to become prominent among the mystics. He held that secular science is of value only as a means to spiritual regeneration. The end of life is love of God, to be attained by various steps or stages. William of Champeaux, after his controversy with Abelard, retired to the abbey of St. Victor, in 1108, and there taught that the universal is in the individual, not as complete essence, but by virtue of particular modifications. It was in this abbey that mysticism as a doctrine began to grow, notably in the teachings of the Victorines. Hugo of St. Victor (1096–1141), author of theological and mystical works, including *De arca noe*

[5] Monroe defines mysticism with reference to its influence on the schools, and as founded on the psychology of Plotinus, *op. cit.*, pp. 279, 284.

morali, and *De arca noe mystica,* was the leader in a movement which spread through the twelfth century. He subordinated natural to spiritual knowledge by teaching that in contemplation the soul is united with God. In the preparatory stage the soul engages in soliloquy, in the stage of thought (*cogitatio*) the soul seeks God in the material world, in meditation the soul seeks him in its own inmost nature, while in contemplation the soul is brought into immediate union with God through supernatural or supra-rational intuition. Richard of St. Victor (d. 1173) emphatically opposed all secular learning, with its errors and vanities. Walter of St. Victor, Richard's successor, held that all heresies are traceable to logic; hence he denounced Abelard, Peter of Lombard, and other scholastics as heretics. Instead of holding that one should believe in or cultivate one's intelligence in order to know, the mystics substituted *love* as the direct clue to knowledge. Thus Richard discovered a basis for the doctrine of the Trinity in the idea of the divine love and the objects of faith which it produces.

Pantheism.—We have already noted the fact that pantheism reappeared in eclectic form in the teachings of Bernard of Tours. Amalrich or Amaury of Bennes (Bena), died 1206, taught pantheism mixed with theosophic or mystical rationalism and deified humanity, based on a revival of the doctrines of Erigena. He was condemned in 1204 for teaching the identity of creature and creator. He retracted his heresy before his death, but his ideas on deification were put in practice by a group of followers, who held that all men are

the Holy Spirit. These views were assailed in an anonymous treatise against the doctrine of Amaury, and the heresy was condemned by the Synod of Paris in 1210. David of Dinant (d. abt. 1200) taught, in his *De tomis,* the identity of God and matter. He derived his pantheism chiefly from Arabian sources, although his doctrine that the same matter (God) is the ground of all beings seemed to be the logical carrying out of the Aristotelian theories of physics and metaphysics as then understood. Indeed, Platonic realism, with its teaching that from God (the highest universal) all things are derived, seemed to imply pantheism as its logical conclusion. Hence the Church was consistent in not only condemning Aristotle (in 1210) and prohibiting his *Physics* (in a Latin translation from the Arabic), and condemning Dinant's *Quaternuli,* but in passing judgment on Erigena (in 1225). But pantheism flourished as a form of free thought, the teaching of Amaury spread into Switzerland, and contributed to the reaction against the strict orthodoxy of realism. The spread of the Amalrican doctrine also led to fierce persecutions.

§ 29. Arabian and Jewish Philosophy

Philosophy in the East.—While Scholasticism was passing through its Platonic period and undergoing the changes which introduced the Peripatetic period, with the re-discovery of Aristotle, a corresponding development was taking place in Arabian and Jewish philosophy. The Hellenistic tradition, which

continued almost without interruption in Constantinople, was the chief source of Arabian philosophy.[1] Representatives of this tradition appeared from time to time during the centuries after Greek philosophy was driven from Alexandria (640), and the influence of Byzantine learning became more pronounced after the first Crusade (1096–1100). After the taking of Constantinople by the crusaders in 1204, Greek literature and philosophy began to be more widely known. From the Syrians and Persians the Arabians received Aristotle's works, which they perpetuated by means of translations from Syriac into Arabic, and by commentaries, during successive stages in the development of their own doctrine, similar to the period of unquestioning orthodoxy, scholasticism, and mysticism among the Christians. It is a notable fact that the founders and supporters of Arabian science were physicians rather than theologians, and that they were as much interested to translate Hippocrates and Galen as to translate Plato, Aristotle, and the Neo-Platonists.[2] Hence there was a measure of interest in natural philosophy.

The Arabians.—The first to come into prominence among the Arabians of the East were Alkendi of Bassora (d. about 870), Alfarabi of Bagdad (d. about 950), Avicenna (Ibn Sina, 980–1037) and Algazel of Bagdad (1059–1111). Avicenna wrote a medical *Canon,* and numerous philosophical works expounding the theories of Aristotle and his Greek

[1] Turner, p. 310.
[2] Windelband, *His. of Phil.,* p. 316.

commentators. Hitherto the Arabian followers of Aristotle had mingled the Neo-Platonic doctrine of emanation with their exposition of the Aristotelian logic, and this synthesis is true in part of Avicenna, who taught that the active intelligence is an emanation from the Supreme Intelligence. But Avicenna departed to some extent from the Neo-Platonic tradition, and adopted Aristotle's view of sensation and a moderate form of realism. According to his theory, universals are separate or prior only in the mind of God; they also exist *in* things, as abstractions from sense-perception. The metaphysical teachings of Alfarabi and Avicenna were modified in part by their religious views, and there was a mystical element in Avicenna's thought. Algazel, the last of this group, introduced scepticism in his *Destructio Philosophorum,* in which he doubted the possibility of attaining truth by the philosophic method. With him, Arabian philosophy came to an end in the East.

The Arabians of the West in Spain included Avempace of Sargossa (d. about 1138), Abubacher (1100–1185), and Averroës (Ibn Roshd), born in Cordova 1126, at first a judge, then a physician to the Caliph, and later driven by religious persecution to Morocco, where he died in 1198. In paraphrases and commentaries, Averroës discussed many of Aristotle's works, and also wrote *Destructio Destructionis* (in refutation of Algazel), and treatises on astronomy and medicine. To him Aristotle was the greatest of philosophers, to whose logic and metaphysics he gave the greatest prominence. He also adopted Aristotle's

psychology, putting special emphasis on the unity of the active intellect.[3] Greatest of the commentators on Aristotle, he did not wholly break with Moorish tradition. He qualified his philosophy in favor of faith as in certain respects superior to reason. His religious views were however as unfavorable to Mohammedans as to Christians, hence his banishment from Cordova.

Jewish Philosophy.—Jewish medieval philosophy was closely affiliated with Aristotelianism. It also included a mystical element based on the *Cabala,* which contained a fantastic mythological and number theory. Avicebron (Solomon ibn Gebirol), a Spanish Jew of the eleventh century, who wrote a compendium of Neo-Platonism entitled *Fons Vitæ,* was a widely known European schoolman. Moses Maimonides (1135–1204), the greatest Jewish philosopher of the Middle Ages, was well known for his *Guide to the Perplexed,* an exposition of Aristotle's philosophy with modifications in favor of Jewish religion on matters in which it differed from Aristotle. He also taught a doctrine of acquired immortality. His teachings profoundly influenced succeeding generations, notably in case of the scientific movement among the Jews of the thirteenth and the two following centuries, and in his influence on Spinoza.[4] The Arabians and Jews gave the first impulse to the study of the physics and metaphysics of Aristotle, although the Arabians were in turn indebted to the Christian scholars of Syria. The Arabians contributed to medieval

[3] Turner, p. 314.

[4] Turner, p. 316.

geography, astronomy, arithmetic, and chemistry, as well as to the interpretation of Aristotle. When they were persecuted and their works burned in Spain, it was the Jews, who, enjoying greater liberty, preserved the works of the Greeks and the Arabians, translated these works into Hebrew, from which the Christians translated into Latin.

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Husik, *History of Medieval Jewish Philosophy,* 1916, Chap. XIII; Windelband, *History of Philosophy,* p. 316; Thilly, *History of Philosophy,* p. 181 (bibliography); Turner, *History of Philosophy,* p. 310.

§ 30. Aristotelian Scholasticism. Aquinas

We have noted the fact that in the first period of Scholasticism the prevailing interest was to reconcile nature and grace, philosophy and theology, on the ground that revealed dogma and natural reason are in accord and that reason is able to demonstrate the truths of dogma. Platonic realism was dominant, since it fostered the conviction that there is a unifying principle which produces the particulars, a whole which comes before the parts. There was a dearth of interest in nature, consequently observation and experiment were not in vogue. In so far as Aristotle was known at all, his philosophy tended to increase interest in logical problems. The transition to the second period, in which reason and dogma once more became separate, began with the re-discovery of Aristotle and the realization of the far-reaching significance of his

system. Robert, Bishop of Lincoln, translated the *Ethics* into Latin about 1250; Albert of Bollstädt (Albertus Magnus) and Thomas Aquinas wrote important commentaries on Aristotle's works; while the learning of the Arabians and Jews gave a great impetus to the study of his physical and metaphysical doctrines. Roger II of Sicily and the Emperor Frederick II gathered groups of Arabian scholars about them, and encouraged the translation of the works of Aristotle and his commentators into Latin. Presently these translations were introduced into the universities of Bologna, Paris, and Oxford; and great numbers of students became acquainted with the Peripatetic philosophy. Possession of the entire logic meant in the first place heightened interest in scholastic dialectic. Aristotle's philosophy was in fact serviceable in strengthening the doctrines of the Church, notably in the case of those schoolmen who strictly adhered to those doctrines. But increase of material knowledge was also a result, and the taking over of teachings not wholly favorable to Christianity. Aristotle taught the eternity of the universe, in contrast with the Christian view of creation; and the general tendency of his philosophy as it came to be understood was naturalistic. Aristotle became in a measure the authority by which the Church continued to dominate, while Aristotle as thinker became in time the power used to break down the scholastic Aristotle. Alexander of Hales (d. 1245) the first schoolman acquainted with Aristotle as a whole and with the Arabian commentators on his works, showed a greater

mastery, in his *Summa universæ theologiæ,* of scholastic method than his predecessors in their summaries and commentaries. William of Auvergne (d. 1249) contributed several treatises based on Aristotle, and a voluminous work entitled *De universo,* in which he showed his thorough knowledge of the Arabian commentators. Vincent of Beauvais (d. 1264) brought together great treasures of learning which tended to increase interest in natural science. It was Alexander of Hales however who developed the plan of thought which was followed by Thomas Aquinas and the other schoolmen who propounded systems. The works of Albert the Great (Albert of Bollstädt, 1193–1280) belong to the intervening period, and include commentaries on Aristotle, philosophical works, commentaries on the *Sentences,* and various theological treatises. Albert was an authority on physics, geography, astronomy, mineralogy, botany, zoölogy, and physiology. He was pre-eminent among schoolmen who, admitting that interest in nature had come to stay, encouraged the spirit of scientific investigation. His general philosophy resembled that of his famous pupil, Thomas Aquinas, regarded as the greatest among those who reconciled Aristotle's philosophy with the teachings of the Church.[1]

Life of Thomas Aquinas.—The son of a noble family of Aquino, Thomas was born at the ancestral castle near Naples in 1224 or 1225. He studied under the Benedictine monks at Monte Cassino, and at the University of Naples, and after

[1] Windelband, p. 313; Turner, p. 339.

joining the Dominicans became a pupil of Albert at Cologne in 1244 or 1245. In Paris he won great fame as a teacher of philosophy and theology, and was called to teach in Rome, Bologna, Viterbo, Perugia, and Naples. His teaching was devoted both to defending the doctrines of the Church against heresies and to the development of a system. He brought Scholasticism to its completion, and in his greatest work summarized Catholic theology as a whole in classic form. He was highly esteemed for his piety and devotion to truth, and was known by his contemporaries as the Angelic Doctor. He died in 1274, and was canonized in 1323. His works include commentaries on Aristotle and the *Books of Sentences, Summa contra Gentiles, Summa theologiæ,* and *Quæstiones disputatæ.* Translation of the *Summa* by Rickaby, Ashley; Vaughan, *St. Thomas of Aquin;* de Wulf, *Medieval Philosophy.*

Philosophy and Theology.—Living in a period when Aristotle was coming into recognition, when Arabian and Jewish thought as well as Scholasticism were reaching their climax, Thomas assimilated the learning of his contemporaries and drew in full measure from the scriptures, Greek philosophy, and his predecessors in constructive Christian teaching. He took as his field the universe as a whole, and endeavored to interpret it as a revelation of God, disclosed by theology, and in philosophy by the teachings of Aristotle, his great master in metaphysics and methodology. His system is in brief a summary of the doctrines of his more or less fragmentary and often

contradictory predecessors in terms of Aristotle's central principles.

Starting with the conception of God as the basis and chief interest of philosophy, Thomas employs the term "pure form" to designate the divine perfection and knowledge. God, as absolute truth, the source of all truth, has communicated truth directly by revelation, indirectly by reason in ourselves. Theology starts with dogmas, such as the creation of the world, original sin, the incarnation, the Trinity, as revealed principles which reason cannot prove but can make explicit. Hence theology, partly human, is completed by philosophy, although philosophy should not intrude into the sphere of specific theological questions which cannot be demonstrated by natural reason. A distinctive sphere having been assigned to theology, philosophy comes forward as knowledge of things through their causes, as an aid to faith, the natural world being continuous with the supernatural, as reason is with revelation. Causes are of the four types in Aristotle's philosophy, conceived with reference to form and matter, actuality and potentiality in their gradation.[2]

Theory of Knowledge.—Our knowledge of the world begins with sense-perception, which has its counterpart in objects existing in the world outside, with which our organism is in direct contact. The first consideration is presented fact, including of course the fact that color, taste, and sound do not actually exist save when perceived, and allowing for the illusions of sense. Intellectual knowledge as an abstrac-

[2] Cf. Turner, p. 348, foll.; Thilly, p. 191; Windelband, p. 321.

tion of universal elements is derived from sense-knowledge. The intellect depends extrinsically upon the body, and although potentially able to refashion the data of sense it is not equipped with innate ideas. But the intellect is also active (*intellectus agens*), it possesses the power of reflection by which it develops the universality and necessity of our conceptions; the intellect transcends all material conditions in the processes of pure thought. Although the mind seems to be limited by the "sensible species" derived through sense-perception as the recipient of particular objects, it forms judgments, arrives at knowledge of first principles, and organizes these as science. The "intelligible species" is no mere copy of the objects presented to the senses, but yields the object in terms of its essential qualities. Thomas agrees with the realists in thus first emphasizing presentative perceptions.[3]

Psychology.—Psychical life exists through intimate union of soul and body, which thus constitute one substance and act together. Although the active intellect is incorporeal and the soul is superior to matter, the soul is dependent on the body in all phases of its activity. The first principle of all bodily functions resides in the soul, as both the formative and the vital agency. No intermediate principle is required between mind and body, because there is immediate interaction between the two, as the direct facts of consciousness show. But there is an ascending scale of psychical activity from organic and sensitive to intellectual functions, and in the higher reaches of mental

[3] Turner, p. 354; Windelband, p. 325.

life the soul is sufficiently free from bodily conditions to make knowledge of incorporeal things possible. The organic and sensitive principles are already present in the embryo, the intellectual principle is added at birth. The soul then is not produced by the body, but God creates it when the body is ready to receive it. Dependence on the body means, for one thing, that the intellect derives all its material through the senses; since there are no innate ideas to yield the matter of thought. But its independence is shown by the fact that the soul can know immaterial as well as corporeal things, because it possesses the power of reflection, and contributes from its own nature the universality and necessity by which it understands the cosmos. The soul is to be regarded therefore in the light of its superior functions, when it is a question of its ultimate nature and its immortality. As a subsistent "form" the soul is incorruptible, independent of the body in interior being and higher activity. The soul is perfected by virtue as well as by knowledge, and both virtue and knowledge involve a degree of separation from matter. Death, too, by separating the soul from matter, perfects instead of destroying the soul. Man as spirit is to be understood as a *created being,* as destined for union with the body; hence as neither pre-existent as some of the Greeks had taught nor as produced by the body as materialism teaches. So too while the mind is in the beginning pure potency and wholly dependent on the data yielded by sense-perception, it also discloses the power of self-determination. The appetites, desires, passions, and emotions

are indeed strong; but the will, deriving from the intellect the idea of the good, possesses the power of superior action. The intellect determines the soul toward first principles, the will towards goodness. In the last analysis intellect is superior to will, and man is free only so far as he is rational. There is indeed power of choice with respect to particular goods, and thus far man is free from external compulsion. But the particulars of conduct are good in relation to the rational purpose which fulfils the good in general.

Ethics.—This conception of rational freedom is essential to knowledge of moral goodness. The intellect not only underlies choice of the good in particular instances, thus determining the will, but contains the principle of universal goodness through which the soul can attain union with God. Implied in man's appetites and longings is an unceasing quest for the good in which all happiness is to be gained. On earth there are secondary goods, imperfect in form and in the happiness they yield. So indeed there are natural virtues, those which the Greeks had inculcated.[4] But man's true self-realization is to be attained through likeness to God in blessedness rather than happiness. To the natural virtues are added by infusion the theological virtues, faith, hope, and charity, the greatest of these being charity (love). Natural goods, such as riches, honor, power, pleasure occupy their proper places in the scale; but man is unable by means of these to attain blessedness. Since the highest good is realized in God alone, it is God who bestows by his

[4] Sidgwick, *op. cit.*, p. 141.

grace those qualities which transfigure the natural in likeness to the divine. Supernatural goodness is bestowed on those who by virtuous conduct have merited it.

Thomas assimilates Aristotle's ethical system as a whole and adds the Christian doctrine to it. The Christian virtues, instilled by divine grace, directly pertain to God as their object. Faith, surpassing philosophy, discloses the content of the supreme virtues; love is their essential form. Love is primarily love to God, secondarily it includes all creatures. So too it is the Christian teaching which discloses the nature of sins as mortal and venial, sins of omission and commission. Evil is privation, relative departure from our moral integrity or action in conformity with our true nature, which is to pursue the good as disclosed by reason and faith. Understood in relation to its true freedom, the will is seen as necessarily tending toward the good; seen in the light of external tendencies which interfere with its efforts, through the dominance of sensuality, the will is subject to sin. The doctrine of salvation completes the ethical scheme at this point. Thomas follows Augustine for the most part, but softens arbitrary predestination into moral by putting emphasis on the divine intellect rather than on the divine will. What God creates or wills as essential to the good is the ideal content of his intellect, the divine wisdom as superior to the divine will. The good is not good primarily because God wills it, as those schoolmen maintain who assign the first place to the divine will: because the good is recognized as

such by the divine wisdom it goes forth as God's command. The intellectual virtues of the Aristotelian scheme are superior to the practical, and the intuitive vision of the divine essence which lifts man above all temporal things becomes the great ideal. By thus emphasizing the divine intellect Thomas adopted the point of view in general which puts Thomism in contrast with the doctrines of the schoolmen who regard the will as decisive in God and man.[5] The "irresistible grace of God" (Augustine) determines by means of the content of revelation both the intellect and the will of man, and there seems to be no room left for responsibility. Thomas presupposes however co-operation between free-will and grace, a position which subjected him to dialectic criticism on the part of his opponents.

Individuation.—Thomism is further distinguished by the teaching that souls exist only as individualized forms: there is one substantial form in each individual, and individual differences are to be explained by the fact that the soul, created into this world, takes on quantitative determinations in space and time (*materia signata*).[6] According to Thomas the soul is both a pure form, separate and subsistent, and also an inherent form, whereby its union with matter is realized. The principle of individuation does not then reside in the separate quality of the soul, but is to be explained by reference to the capacity of matter to assume differences: there is but one example which corresponds

[5] See Windelband's summary of the controversy, p. 328, foll.
[6] Windelband, p. 341.

to the separate forms. This doctrine of the substantial form in each individual, characterizes the Dominican tradition in contrast with the Franciscan, which stands for the teaching that the individual soul is a self-subsisting reality.[7]

Thomism.—The doctrine of Thomas concerning the substantial form in man aroused a controversy among the Dominicans, including Roland of Cremona, Richard Fitzacre, and Robert Kilwardby; but his view was presently adopted. Chief among his Franciscan critics was William de la Mare. Secular teachers also took sides, and leading churchmen came to the defence of Thomas, including Ulrich of Strasburg, Bernard of Hotun (d. 1298), Giles of Rome (1243–1316), and Godfrey of Fontaines (d. 1304). Vincent of Beauvais popularized the controversies in his *Speculum magnum.* Hervé of Nedellec (d. 1323) wrote many works expounding Thomism. Dante (1265–1321) is reckoned among the Thomists, and his *Divina Commedia* has been called "Aquinas in verse." Henry of Ghent, (d. 1293), defender of the primacy of the will, taught a modified Thomism; so did various Jesuit writers, including Gabriel Vasquez (d. 1604). Thomas was made "doctor of the order" in 1286; and the Jesuits adopted Thomism for a time in 1534. The philosophy of Thomas was made the official philosophy of the Catholic Church by Pope Leo XIII, and his teaching continues to be the leading system in Catholicism.

[7] Turner summarizes the theory of immortality, p. 360; and the theory of the State, p. 377: see Thilly, p. 202, Sidgwick, p. 144.

§ 31. Mysticism. Bonaventura

Bonaventura.—John Fidanza, called Bonaventura, surnamed *doctor seraphicus* (1221–1274) was the most illustrious disciple of Alexander of Hales. He was born at Bagnorea, near Orvieto, entered the Franciscan order at an early age, and was made general of the Franciscans in 1257. He wrote commentaries on the Sentences, *De reductione artium ad theologiam,* and other theological works, also treatises on asceticism. Bonaventura was a speculative mystic, and is regarded as the best representative of the mysticism of the thirteenth century. He drew upon the doctrines of the Fathers, pseudo-Dionysius, the psychology of Augustine, and commingled Augustinian elements of thought with Christian Platonism. He also derived teachings from Bernard of Clairvaux, and in mysticism carried out the doctrines of the Victorines. He agreed with Thomas in regard to the relationship between theology and philosophy, but emphasized will rather than reason, also the emotions, in his ascetic theology.

Metaphysics.—In his metaphysics, Bonaventura distinguishes essence and existence, act and potency, form and matter; and rejects Thomas' doctrine of subsistent forms, holding with Alexander of Hales that there is *no form without matter.* This conception of matter, together with the doctrine of the plurality of substantial forms, is characteristic of the Franciscans in contrast with the Dominicans. The substantial form completes the being of a substance, and there are subordinate forms constituting inferior

principles of perfection. There is no real distinction between the specific essence and the individual essence. The principle of individuation is neither matter nor form, but individuals are differentiated from one another by both matter and form. The first matter, purely passive according to Thomas, is according to Bonaventura endowed with activity: the production of created substances is accounted for by postulating the potency of matter and efficiency of the agency which acts. There are also *rationes seminales,* that is, principles (created with the matter) which co-operate with the agent in the production of the effect. In this way Bonaventura distinguishes the transformation of substances from both creation and annihilation. These Augustinian ideas were already well known, but the form which Bonaventura gave them made these ideas influential in the reaction against Thomism. Memory, intelligence, and will are enumerated as the faculties of the soul; and these faculties are distinguished from the soul's essence. The soul is immaterial and immortal, and the nature of man is defined in Peripatetic terms.

Mysticism.—Bonaventura's theory of knowledge is developed from his mysticism, as formulated in his *Itinerarium mentis ad Deum* and *De reductione artium ad theologiam.* As the successor of Bernard and the Victorines in this respect, he himself became in time the favorite author among the orthodox mystics. Knowledge is attained through a series of stages; since there is an eye of the flesh, an eye of reason, and an eye of contemplation (*oculum contemplationis*). The

ultimate source of knowledge is illumination, of which there are four kinds: exterior, inferior, interior, and superior. The *lumen interius* (light of philosophical knowledge) starts from a knowledge of the sensible world and of first principles, as natural gifts, and rises toward knowledge of God; but only through the *lumen superius* (light of divine grace and Holy Writ) is it possible to arrive at truth essential to salvation. The external world yields a trace (*vestigium*) of God; in ourselves we find an image of God; through contemplation of higher things we rise to knowledge of God in his nature and threefold personality, although this contemplation is due to ecstatic knowledge by divine grace, passing beyond the knowledge of God as shadowed forth in nature and imaged in our souls. The mental and mystic ecstasy which is the highest grade of contemplative knowledge is a state in which the soul, transcending sensibility and intellect, is caught up into mystic union with God. Knowledge of God is first in order of importance, and in this knowledge the soul is independent of all sense-knowledge. But this does not mean that knowledge of God is prior to all other knowledge, for Bonaventura adopts the theory that the mind in the beginning is a *tabula rasa* (like an impression-plate) ready to receive impressions. He does not then hold that we see all things in God, or start with intuitive knowledge of God as the basis of all knowledge. He therefore adopts the well-known scholastic proposition: "Nothing is in the intellect which was not first in the senses." The intellect may grasp the effect without understanding the cause.

When the intellect "resolves" the effect, there is included a knowledge of the cause, and in real knowledge of any creature knowledge of God. Mystic knowledge pertains especially to that which is essential to salvation. Bonaventura is admired as the type of the orthodox mystic because he gives the principles of the Victorines their classic expression without indulging in the "exaggerations" of later mystics offensive to those who regard pantheism, deification, and the teachings of Meister Eckhart, for example, as heresies.[1] He adds to the traditional "I believe in order that I may understand" the mystic formula: "I love that I may understand." [2]

§ 32. Anti-Scholasticism. Roger Bacon

Life of Roger Bacon.—Although Roger Bacon was a Franciscan, he did not represent the Franciscan tradition as a whole. He was born near Ilchester in Gloucestershire, 1214; studied at Oxford, where he became interested in languages, mathematics, and the physical sciences; and in Paris, where he heard Alexander of Hales, and possibly Albert the Great. At Oxford he became one of the most famous masters, in a brief and brilliant career. Exiled for some unknown reason by his superiors, he lived a virtual prisoner in Paris from 1257 to 1267. Liberated in 1267, he was again imprisoned on the charge of insubordi-

[1] On deification, see Inge, *op. cit.*, p. 356.
[2] Sidgwick regards Bonaventura as typical of medieval Platonism and Neo-Platonism in ethics, in contrast with Thomas, *op. cit.*, p. 149.

nation, and because of violent attacks on the religious orders and the higher clergy. He was set free once more in 1292, but he had been kept in such subjection that little attention was paid to him, and even the date of his death, possibly 1294, is uncertain. Thus was lost to liberalizing thought a man of great ability, with insights far beyond his age, anticipating the era of natural science in modern times. Roger Bacon's chief work is *Opus majus,* dedicated to Clement IV, an attack on the philosophy of his age looking forward to the regeneration of philosophy on a scientific basis; edited by Jebb, Bridges. The teachings of this work were completed by *Opus minus* and *Opus tertium.* The remaining works were published in London in 1859. Charles, *Roger Bacon;* Siebert, *Roger Bacon.*

Natural Science.—Interest in natural science began in a measure with Adelard of Bath (abt. 1100), a Platonist; Albert the Great, regarded as an excellent student of nature because of his interest in the special sciences, and his efforts to establish in philosophy the spirit of scientific investigation; Vincent of Beauvais, great as an encyclopedist; Alfred Sarchel (Sereshel), who expounded the physical and physiological doctrines of Aristotle and the Arabians, and wrote a treatise on the motion of the heart, about 1225; Alexander Neckham (d. 1217); and John Peckham (d. 1292). Roger Bacon anticipated Francis Bacon, who lived in an age when the reform of philosophy was possible, and was the first to advocate thorough reform by the use of observation and experiment. He emphasized mathematics, as the basis of instruction, and the

physical sciences, notably astronomy, chemistry, medicine, agriculture (plants and animals), although his physics was confused with divination (as was then customary), his chemistry with alchemy, and his astronomy with astrology (not yet distinguished as one of the "pseudo-sciences"). He valued the study of languages as indispensable to theology and philosophy. He put extreme emphasis on confirmation by experience, even in the case of mathematical proof, to the neglect of deductive reasoning.

Empiricism.—Roger emphasized experience rather than demonstration because "without experience, nothing can be sufficiently known." He did not however neglect inner illumination as the source of knowledge of spiritual things and the insight which is essential to the sciences and philosophy; he found a place for the several stages of mystical knowledge in behalf of those whose experiences are of a higher type. But he was unable to discriminate between science in the modern sense and the fantastic ideas, superstitions, and magic which still interfered with scientific thinking. In his Augustinian-Platonic philosophy Roger agreed also in large measure with Aristotle (in contrast with all translations, which "should be burned") and with Avicenna, whom he esteemed next to Aristotle. He adopted the Franciscan conception of the plurality of forms and the subordinate principles; but departed from the Franciscans by adopting the Arabian conception of the active intellect as separate and as identified with God. Roger had some knowledge of the reflection and refraction of light, and some ac-

quaintance with the telescope, which may have been nothing more than a combination of a concave mirror and a lens. He anticipated modern inventions, such as the locomotive and suspension bridges; and described the Milky Way (which he may have observed through his primitive telescope) as composed of many stars. From the point of view of strictly orthodox Scholasticism Roger Bacon was as objectionable and lacking in amenability as Abelard, who also showed great lack of respect for authority and scientific prestige. But such is the judgment passed on those who are creatively heterodox. Nevertheless, he is known as "the greatest scientific light of the thirteenth century," and his failures are said to be due to his violent attacks on the mendicant orders, the bishops, and the pope.

Lully and Durand. — Influenced by Averroism, other thinkers indulged in heresies which prepared the way for the separation of philosophy from theology. John of Brescia advanced his heresies as philosophic truths, true in their own sphere. The Bishop of Paris condemned such heresies, and in 1270 and 1277 the scheme of twofold truths was condemned. Averroism as taught in the University of Paris was especially condemned. The Averroists were the heterodox Aristotelians, opposed to the traditional Aristotelianism of the schoolmen: they differed in regard to the unity of the active intellect, the immortality of the soul, the freedom of the will, and the question of fatalism. They also held that what is true in philosophy may be false in theology, and *vice versa,* a doctrine which

strikes at the root of strict Scholasticism. To advocate Averroism was to prepare the way for the freedom of thought which was to come with the downfall of Scholasticism. This tendency was opposed by Raymond Lully (*Doctor Illuminatus,* 1235–1315), author of *Ars brevis* and *Ars magna,* highly praised for his effort to convert the whole Moorish world to Christianity. His Great Art was a mechanical device for combining fundamental concepts in a complete system, by placing a series of nine concepts and questions on seven movable concentric disks so as to produce the appropriate answers, a scheme which was believed in as late as the seventeenth century. Lully maintained that reason could solve all problems, without contradicting the Christian faith, and by demonstrating all the mysteries of religion. The Franciscan, Peter Aureoli (d. 1321), and the Dominican, William Durand (Durandus, *Doctor Resolutissimus,* d. 1332), once a follower of Thomas, tended toward liberal thought, in the direction of nominalism. Aureoli denied the reality of universals, the existence of species and the active intellect; also the distinction between essence and existence, and between the soul and its faculties. Durandus rejected the sensible and intelligible species, the active intellect, the divine co-operation with secondary causes; and held that the universal exists only in the mind, while the principle of individuation is not distinct from the specific nature and actual existence of the individual.

§ 33. Duns Scotus

The most vigorous opponent of Thomism was John Duns Scotus, born in England or Ireland about 1266 or 1274. He joined the Franciscans at an early age, and studied at Oxford when the movement against Thomism was strong. He taught at Oxford (1294–1304), in Paris, and Cologne, and died in 1308. At both Oxford and Paris he enjoyed an unsurpassed reputation as a teacher, and was known as *Doctor Subtilis* because of his great skill in dialectic. One of the chief thinkers of the period, he is called by Windelband the acutest and deepest thinker of the Middle Ages. His works include *Opus Oxoniense, Opus Parisiense,* and *Quæstiones quodlibetales.*

Voluntarism.—The tendency to separate philosophy from theology, already in process because of Thomism, becomes more distinct in the teaching of Scotus, who acutely criticizes his predecessors. He is willing to accept the dogmas of the Church on faith, but doubts the possibility of proving the immortality of the soul, for example, or demonstrating the existence of God. Revelation is essential to theology, and the implied doctrines constitute a science. But this does not preclude the possibility of philosophical knowledge of first principles. Philosophy, having won the right to its separate field, is free to develop without limit. The freedom which Scotus thus claims amounts to a rejection in part of the authority of the Church, and of the rationalism and determinism of Thomas. The turning-point is in Scotus' conception

of the will in contrast with the primacy of the intellect, espoused by Thomas. Scotus is a voluntarist in his conception of both God and man. Augustine had long before given first place to the will as the impelling power even in our intellectual processes.

Freedom. — Scotus finds that without freedom there can be no responsibility, although intellect co-operates with will in all its activities by presenting the possibilities of choice. Since the idea is only the occasioning cause, the decision and resulting conditions rest with the will. Ideas are made clear and distinct by the focusing of attention upon them, and the resulting changes in the content of consciousness follow from this their intensity.[1] So too God, in creating the world, acted through freedom, the world is not a necessary consequence of the divine mind, God could have created another sort of world had he so willed. If the divine causality were necessary, God would be bound to his creations, unable to exist without them; he would not then be independent.[2] Further, if all things were determined by divine necessity, and this in turn by the idea of the good, God would be the author of evil as well as of other things, and pantheism would logically follow. But, granted that God is really independent and free, not only the world but goodness, justice, and the moral law are founded on the divine will. The same reasoning applies to man, who possesses not only the power to will or to abstain, but freedom of choice (liberty of indifference).

[1] Windelband, p. 331.
[2] Fischer, p. 75.

It follows that the reception of divine grace depends in part on the free-will of the individual.

The doctrine of predestination is seriously called in question by this logic, and the way is open to believe that every soul was created sinless and free. With Scotus' affirmation of individual liberty, the authority of the Church is also called in question, and the way is prepared for the downfall of Scholasticism, and the emancipation of the religious conscience. Freedom for the individual in general follows from the assertion of the primacy of the will.

Individuality.—This doctrine is further supported by Scotus' conception of universals. In general Scotus follows the constructive theory of his day, namely, that universals exist *before* things in the mind of God, and *after* things as concepts in our minds. But emphasis falls on the individual form as the original fact, not to be derived or deduced from the universal ground, but to be verified as actual. Individual differences are thus brought to the fore as the principle of individuation, and the doctrine of individuality becomes prominent. Individuation is not due to the mere form or matter, but to the distinctive property or characteristics inherent in the individual himself. Here again Scotus departs from Thomism.

§ 34. Nominalism. Occam

Terminism.—Duns Scotus inaugurated a period of free inquiry and criticism, which led to the renewal of nominalism. The antagonism to realism be-

gan with William of Occam (b. about 1280), who is said to have studied under Scotus at Oxford. He sided with the opponents of the temporal power of the popes, and was imprisoned at Avignon. He died about 1349. Called the Abelard of his age, with a broad and keen vision for reality, and a bold, unresting eagerness for innovation (Windelband), he developed the naturalistic tendencies of the followers of Aristotle, and combated realism with great vigor. But for him universals are not mere names; they are concepts, signs, or *termini* standing for existing individual things. His doctrine is therefore known as terminism. Sense-knowledge is not in this view a copy of objects. An idea, as a state of the soul, represents various sense-perceptions, and all knowledge proceeds by terms. There is an outer series of real individual objects and an inner series of states of consciousness with its corresponding ideas. Only the individual is real. Even God has knowledge of particular things rather than of things in general. The "universal" of realism is superfluous. It would be absurd to try to prove the existence of God or to develop a rational theology. The Church having been assigned to its proper sphere in the realm of faith, the will declared to be fundamental in metaphysics, empiricism with its methods of observation readily follows. Reason no longer sustains dogma, although one is free to *believe* supernatural truth.

Liberalism and Parsimony. — Occam has been called the first Protestant. His individualism reminds us of Protagoras, and suggests the modern view that

ideas are short-hand summaries of objective things. It leaves us sceptical. His law of parsimony (Occam's razor) finds recognition in recent pragmatism, with its rejection of useless conceptions. The idea of *species intelligibles* seemed to him a useless doubling of things. His simplifications suggest idealism as the resource. There seems no way to continue the constructive efforts of the scholastics. Occam is said to be the forerunner of the anti-Christians of the Renaissance. With the breaking down of the fundamental principles of Scholasticism, and the reappearance of nominalism in full vigor, the right to question authority is firmly established. The use of Occam's books was prohibited by the University of Paris in 1339, nominalism was rejected in 1340, it was condemned by the pope, and realism became imperative for teachers who were to sustain the Church.

Nominalistic Controversy. — The controversy, which lasted more than one hundred years, numbered on Occam's side John Buridan (d. about 1350), active in discussing free-will; Albert of Saxony (d. 1390), author of works on logic and metaphysics; Robert Holcot (d. 1349); Gregory of Rimini (d. 1358); Nicolas d'Oresme (d. 1382); Marsilius of Inghen (d. 1392); Heinrich Hembucht (d. 1397); and Gabriel Biel (d. 1495), the summarizer of Occam's doctrine, who was called the last of the schoolmen.

Peter d'Ailly (1350–1425) held that inner perception is more certain than sense-perception, and gave prominence to deductive reasoning in the sciences. Nicolas of Autrecourt, cited to answer charges of

heresy, and condemned in 1346, regarded the principle of contradiction as the only one immediately evident; and, doubting the law of causality, held that the existence of the external world and of the soul's faculties cannot be demonstrated. John Gerson (1363–1429), a highly influential orthodox mystic, developed mysticism in the direction of nominalism. Raymond of Sabunde, author of *Theologia naturalis,* a Spanish physician, and professor of philosophy at Toulouse about the middle of the fourteenth century, endeavored to harmonize nature and revelation as "books" which contain the same truth, and rejected the distinction between the natural and the supernatural on which the schoolmen had insisted. Since the book of nature is God's work, all men may read it. This teaching opens the way to mysticism, in contrast with the barren formalisms of the scholastic period. Hence we find mysticism, reappearing with individualism and protesting against mere dialectic, also becoming the ally of liberal thought. The Latin mystics, following Bernard of Clairvaux and the Victorines, were loyal to the Church, and opposed the dry disputes of Scholasticism on the ground that these endangered the dogmas. Pierre d'Ailly, John Gerson, and Raymond of Sabunde belong with those who were loyal.[1] German mysticism developed more freely, in contrast with the doctrines of the Church. Prominent among the German mystics were Eckhart, Heinrich Suso or Seuse, Johannes Tauler; the unknown author of *Theologia Germanica;* the Dutch mystics, Jan van Ruysbroek

[1] See Inge, *op. cit.,* p. 146.

and Gerhard de Groot; the Brothers of the Common Life; and Thomas à Kempis, author of the *Imitation of Christ.*

§ 35. Eckhart

Life.—Meister Eckhart, known as the father of German mysticism, probably born in Saxony about 1260, was professor of philosophy in Paris in 1300, and held various offices in the Dominican Order. He lived for a time in Cologne and Strassburg, and won great fame in both cities as a preacher. In addition to his Dominican affiliations, he was in close sympathy with the Beghards and Brethren of the Free Spirit, societies which stood for faith in the inner light. With him began the custom of teaching the laity in their own tongue, and his sermons had great influence among religious people such as the Beguines, Beghards, and the Friends of God. He adapted the abstruse teachings of Scholasticism, supplying the needed terms and phrases, and so became known as the father of German philosophic prose. It was an offence however to teach the secrets of the Church to the people, and he was called to account. Eckhart died in 1327, during the painful discussion of his orthodoxy, and in 1329 he was excommunicated on many points of heresy. Among his hearers in Cologne were Tauler, Suso, and Ruysbroek, active later in teaching Eckhart's doctrine. Eckhart wrote in Latin for the learned, in line with scholastic tradition, on which he founded his general principles. In his ser-

mons he put a more concrete and personal interpretation on these principles, and appealed to the practical aspiration of his hearers.

The Godhead. — The philosophy of Eckhart is founded on the Thomistic system and Neo-Platonism as derived from pseudo-Dionysius, with frequent references to Paul and Augustine. The Godhead is described negatively as incomprehensible, transcendent, modeless, excluding all otherness, to be sought by opposites, as not-Being; yet as the eternal potentiality of all Being, the ground of all distinctions, the unity in which all beings are one. The inherent Trinity, when evolved, brings God within the range of man's higher knowing; the Father begets the Son in the innermost ground of the soul, the Son as the Word is God's uttered thought. The Son is not alone the historical Christ, but the Word seeks to be born as the Son in all mankind. This birth means that man in innermost being is one in essence with the Father and the same in nature as the Son, so that God's ground is man's ground: knowing God and being known by God are one and the same. This knowledge is intuitive, is produced in us by the Word, and becomes ours only so far as, emptying ourselves of all images and likenesses, passing beyond all creaturehood, God's nature and essence becomes ours. In man as such there is no likeness, no image; since such ideas fall far short of identity with God.

The Divine Spark.—To be the Son of God I must have the very same nature, so that there are not many sons but one Son. We are many indeed by

carnal birth, and in this regard man is only an accident of nature. But the soul has a divine spark at the apex of the mind which, never-dying, untouched by time and flesh, quickened by the Spirit, remaining in the Spirit, makes possible the eternal, unextended knowledge of complete union with God. This power in the soul, its tabernacle, alone is free, "of all forms void, exempt and free as God is in himself." In this power God is ever verdant, "flowering in all the joy and glory of his actual self." This "spark" or ray of God the Father, yielding "the form of God without any difference at all," is also called *synteresis* (synderesis), a term employed by the schoolmen as equivalent in part to "conscience," or knowledge of God under the aspect of the Good. Eckhart in one passage identifies the spark with God, and his doctrine at times approaches idealistic pantheism in which the external world nearly disappears. In other sayings the soul is described as "the same as God but not altogether." For Eckhart never loses sight of man's practical needs, the call to become "one," to be so "unified" that the one power "may energize in us." Although in reality we always love God with his own love, actual awareness of this fact deifies us. Then we become one with God in both knowing and operation. God is more in the innermost or summit of the soul than elsewhere, although depth and summit are eventually seen to be the same. The great incentive is, to see the soul in "the one light radiated by the Father for the purpose of revealing his own hidden light" in the hidden place within "where time has

never entered and no form was ever seen," at the centre "where God is creating the whole world." [1] Eckhart means to disparage creatureliness only in so far as it impedes the soul, that he may make transparently clear his one great idea, union with God. He holds emphatically that "he who seeks God under settled forms lays hold of the form while missing the God concealed in it." Hence only "where creature stops, there God begins." Eckhart does not then maintain that all things are equally divine, nor does he deny the existence of evil.[2] His doctrine amounts to a far more intimate assertion of the divine immanence, and in thus bringing God nearer he devoutly believes he is rightly interpreting Christianity, making the doctrines of the Church vitally true by proving that they can be realized. Adopting his theoretical basis, his followers concerned themselves with the practical religious values of this teaching.

Other Mystics.—John Ruysbroek (1293–1381) is typical of those who are less exact in phraseology, although he is classified as an orthodox mystic.[3] His teachings were widely inculcated by Gerhard Groot (1340–1384), founder of the Brothers of the Common Life, who in turn influenced Thomas à Kempis (1380–1471), author of the *Imitation of Christ.* John Gerson (1363–1429), who undertook to combine mysticism with Scholasticism, also endeavored to reduce mysticism to an exact science by giving more atten-

[1] *Meister Eckhart,* ed. by Franz Pfeiffer, Leipzig, 1857; trans. by C. de B. Evans, 1924, pp. 144, 164.
[2] Cf. Inge, *Christian Mysticism,* p. 155.
[3] Inge, *ibid.,* p. 170.

tion to its psychology, and distinguishing between symbolical, natural, and mystical theology. Henry Suso (1295–1365) set forth the mystical doctrine of Eckhart in an exceptional autobiography. He is described by Ueberweg as "the Minnesinger of the love of God, with whom the pious effusions of an extravagant fancy entered into singular union with Eckhart's abstract speculations." John Tauler of Strasburg (1290–1361) won great fame as a preacher, and was a forerunner of the Protestant mysticism of Sebastian Franck, Valentine Weigel, and Jacob Böhme. Tauler was active among the Friends of God, an association of a pietistic type, founded in Basle about 1340, which spread through Germany and the Netherlands, most of the leaders being Dominicans.[4]

[4] Inge, p. 180. For historical summary and bibliography of works on mysticism, see E. Underhill, *Mysticism*, 7th Ed., 1918, pp. 541, 563.

CHAPTER VIII

TRANSITION TO MODERN PHILOSOPHY

§ 36. Philosophy of the Renaissance

The Downfall of Scholasticism.—The decline of Scholasticism might be attributed to neglect of its greater teachings, those which seem to a follower of Thomas Aquinas its true or genuine principles. Thus Occam and his followers might be regarded as doing great harm to Scholasticism by diverting attention from serious study of the great masters. Scholasticism would then be classified as orthodox, and the departure from it as disloyalty to the Church. But it could also be said that the decay of Greek philosophy at the beginning of the Christian era and during the next two centuries was due to neglect of its central truths. It was possible no doubt to interpret Aristotle so that the modern investigation of nature would have proved to be the realization of the methods and principles underlying empirical study in antiquity. But Aristotle had long been regarded as an authority in the field of speculation, his conceptions had become crystallized, and his astronomical ideas had to be overcome in favor of the heliocentric system.

Beginnings of Humanism.—The new life which gathered headway and produced the Renaissance and the Reformation was too powerful to be confined by the old formulas. Scholasticism declined during the fifteenth and sixteenth centuries from internal causes. The Middle Ages had been the period of a "City of God" on earth through triumph of ideas of the supernatural, and the period of widespread ecclesiastical authority was coming to an end. Heretical tendencies had appeared from time to time, and were never wholly suppressed. Nominalism, at first moderate in tone, became pronounced individualism, and by fostering free or liberal thought, anticipated the modern spirit. Individuals were becoming restive under the rule of divine ordinances imposed on them by glorifying the Church and binding man. Mysticism also tended to free the individual by granting him the right to appeal to the sources of religious experience. Human knowledge was limited not merely by the doctrines of the Church, which assigned a subordinate field to the life of reason, but by the fact that even the philosophy which was used to justify faith was borrowed from ancient times. It was natural that with the gradual escape from these bondages should come a new humanism, glorifying man as a natural being, calling attention to his native capacities, the possibility of greatness, the opportunities for employing his freedom. The question of the relationship of Church and State led in time, under new political conditions, to new conceptions based on appeal to the natural rights of man.

Discoveries and Inventions. — The Renaissance was both a period of the rediscovery of classic literature as of worth in itself and of criticism of the traditions which had held the human spirit in bondage. The Reformation sprang up in the various countries in response to a yearning for a freer life of religious thought, giving to man as a spiritual being the rights he was claiming in other connections as a social and political being. The voyages of Columbus, Vasco da Gama, Balboa, and Magellan, resulting in the discovery of America and the passage to India, greatly enlarged the geographical horizon, and gave men a new conception of the world. New inventions, especially the invention of printing, enlarged the horizon in other respects and made possible the spread of literary culture. First came a great revival of learning and humanism in Italy and other European countries, leading to the rediscovery of the original teachings of the great Greek philosophers; then in time in Italy there appeared a new philosophy of nature, breaking with Aristotle as interpreted by Scolasticism in favor of scientific methods of observation and experiment. In time a new astronomy won its way through the leadership of Copernicus and Galileo, despite the effort to suppress all teachings in conflict with the doctrines of the Church. To understand the part played by philosophy during the period of the Renaissance and Reformation, it is important to bear in mind the leading movements of thought in the fields of literature, education, art, religion. None of these influences alone would have sufficed to carry the hu-

man spirit into modern times. There was a common meaning in all these reactions, namely, a movement from the general to the particular, the universal to the individual through recognition of secular and other human interests which had been neglected. Neither in religion nor in political affairs was there any longer to be a single empire imposing its universals on individuals in the name of authority, and keeping man from studying nature and the inner life in unhampered quest of truth. Instead, there was to be a new national feeling, free from the guardianship of theology and the scholastic doctrine of the State, based on the historical point of view; scientific independence of thought, unrestricted by identifications between the old astronomy and the plan of salvation; and a new social consciousness arising out of the new humanism.

The Renaissance in Italy.—The conditions had been for some time preparing for the Renaissance of learning and literature in Italy. Some of the influences date back to the Crusades, with the new contacts which then began. The new commercial activity and desire for travel and exploration was early fostered there. The literary interests started with the time of Petrarch (1304-1374) and Boccaccio (1313-1375), poets who cultivated a taste for the classics, and wrote in their mother tongue. Dante was the ideal representative of the classic spirit of the Middle Ages in relation to the dawning spirit of the modern period. Petrarch aroused great interest both in the Latin of Cicero's time and in his own language, and was the first to break definitely with medieval tradition. The

Italian Renaissance began to be significant for the history of philosophy with the revival of interest in Greek and the coming of scholars, beginning with Manuel Chrysoloras (d. 1415), who lectured at the universities of Florence and other cities, 1397–1400. The exodus of Greek savants which began after the fall of Constantinople (1453) was the signal for a return of interest in ancient art, literature, and philosophy.

Gemistus Pletho (1355–1452) was the pioneer among Greek scholars in Florence devoted to philosophy. Pletho was an enthusiastic devotee of Plato and Neo-Platonism, and opposed Aristotle's objections to the Platonic teaching. He wrote a treatise on the differences between the Platonic and Aristotelian systems, and a *Compendium of the Dogmas of Zoroaster and Plato.* Pletho's lectures aroused great interest on the part of Cosmo de' Medici, and led to the founding of the Platonic Academy at Florence, of which Marsilius Ficino (1433–1499) was the first director. Bessarion of Trebazond (1395–1472) also defended Plato, opposed the Aristotelians; and translated Xenophon's *Memorabilia* and Aristotle's *Metaphysics.* Ficino, who found all wisdom and the clue to Christianity in Plato, translated the works of Plato and Plotinus, and wrote *Theologica Platonica.* Plato seemed to him the real heir to the wisdom of Zoroaster and Pythagoras; while Philo, Numenius, Plotinus, Jamblichus, and Proclus were the true followers of Plato. John, Paul, and Dionysius are said to have received the same light. Christianity and Neo-Platon-

ism being thus harmonized, knowledge of God is found to be dependent on the mystery of nature.

Occultism.—Hence Neo-Platonism assumes the form of what historians of philosophy call "theosophy."[1] From this occult point of view nature is not a field for scientific observation, but is like a sealed book awaiting the key to its mysteries: theosophy (speculative mysticism) is the esoteric doctrine which discloses this hidden meaning, and the central clue is found in the Jewish *Cabala,* said to contain a divine revelation received in primitive times. Scientific observation did not come into vogue while the hope was still cherished that miraculous command of nature could be attained by some secret means. The mixed teachings of the day combined in a strange fashion a measure of interest in nature with faith in the occult powers of the supernatural. John Pico of Mirandola (1463–1494), with his interest in the *Cabala,* with its secret theories of emanation, mystically combined with Neo-Pythagoreanism, is typical of the time. John Reuchlin (1455–1522) added to this interest in cabalistic mysteries genuine zeal for the study of Hebrew, and as a pioneer in the early stages of humanism defended Hebrew literature in the conflict of humanism with Scholasticism in Germany. He wrote *De arte cabalistica, De occultia philosophia,* and similar works.

Occultism Elsewhere.—The cabalistic or theosophic type of thought, combined with interest in magic, was also fostered by Agrippa of Nettesheim

[1] Cf. Fischer, *op. cit.,* p. 98; L. Spence, *An Encyclopedia of Occultism,* 1920, p. 410.

(1487–1535), author of an anti-scholastic treatise, *De vanitate scientiarum,* attacked all kinds of rationalistic science in order to show the possibility of mystical illumination and the magic arts. Theophrastus of Hohenheim, known as Paracelsus (1493–1541), a widely travelled Swiss, undertook to reform medicine by the aid of chemistry, and developed a speculative system combining Neo-Platonism with occult ideas in which scientific conceptions and fantastic notions are strangely mingled. He held that the four elements, each ruled by spirits, are composed of a solid, a liquid, and a combustible substance as their bases. The "archeus" or ruling spirit in each is a vital principle or individuation of the general forces of nature. Disease results from a checking of the "archeus" by terrestrial and astral forces, and secret knowledge of alchemy and magic enables the physician to use the "archeus" in re-establishing harmony.

Platonism and Aristotelianism.—The Neo-Latin Renaissance in Italy, which found its models in Cicero and Quintillian, was represented in philosophy by Lorenzo Valla (1400–1457), who vigorously opposed Scholasticism. The study of Aristotle was fostered by Georgius of Trebizond (1396–1484), author of *Comparitio Platonis et Aristotelis,* in which he attacked the positions maintained by Pletho; and Theodorus Gaza (d. 1478), translator of works on physical science by Aristotle and Theophrastus. In Holland and Germany Rudolph Agricola (1442–1485), and in France, Jacques Lefèvre (1455–1537) stood for this interest in Aristotelianism. Other devotees of Aris-

totle wrote treatises, made translations, and gave lectures in Padua and Bologna, where the controversies of the sixteenth century were waged. Plato, Plotinus, and Proclus appealed to minds of a more poetic or imaginative type, in Florence; while in Padua and Bologna scholars gathered who were concerned to find the difference between the Aristotle of the Greek texts and the Aristotle of the schools. Meanwhile Stoicism was revived by Justus Lipsius (1547–1606) and Caspar Schoppe (b. 1562). Those who led the return to the Aristotle of the Greek texts naturally preferred the Greek commentators to the Arabian, and disputed the authority of Averroës. The Averroists adopted an interpretation of Aristotle which tended toward pantheism. The opposing school found an authority in Alexander of Aphrodisias (abt. 200 A.D.), whose point of view was espoused by Pompanatius (Pompanazzi, 1462–1530).

The chief controversy was over the immortality of the soul: Is the active reason also personal and individual? Is there personal immortality? If not, there can be no retribution for man in the next world, no reason for teaching that there is another world. The question was also momentous because if it could not be shown that Aristotle taught personal immortality there would be a breach between Aristotelianism and the Church. To hold, with Averroës, that active reason is identical with the universal mind was to deny personal immortality. Pompanazzi, in his treatise, *On the Immortality of the Soul* (1516), contended that if the active reason is a product of development, there

can be no immortality of any kind. Immortality then becomes a mere matter of faith, according to the authority of the Church, in which Pompanazzi professed to believe. Pompanazzi also argued on naturalistic grounds against miracles and free-will. Many conclusions followed, welcomed as in accord with the worldly spirit which many humanists professed. For example, it was no longer necessary to believe in apparitions of the dead, resurrections, or ghosts. Since Aristotle teaches that the soul is merely a function of the body, there is no ground for belief in the exorcism of spirits; and the supernatural, on the whole, disappears. The way is therefore open for a new philosophy of nature. Two of the prominent professors at Padua, and other leaders of thought adopted the interpretation of Pompanazzi, opposed by Achillini and other Averroists who harmonized Averroism with the Church. One of the disciples of Pompanazzi, Lucillo Vanini, was burned alive by the Inquisition, at Toulouse, 1619.

Vives.—In Spain vigorous opposition to Scholasticism began with Luis Vives (1492–1542), who contributed to philology and pedagogy, as well as to philosophy, and was a forerunner of modern empirical psychology. He exposes scholastic sophistry in his *Sapiens,* a dialogue, and in his chief work, *De disciplinis.* He holds that instead of limiting ourselves to Aristotle in natural science we should investigate nature. So too in metaphysics the beginning should be with the data of experience and reflection upon them. In his psychological work, *De anima et vita*

(1538), he starts with the fact of the soul's activity in contrast with speculations concerning its essence. Psychology should be emancipated from metaphysics and theology. Vives adopts the descriptive method, and describes the emotions skilfully. He identifies the soul and the vital principle and introduces physiological considerations in so far as they were available in his day. He distinguishes the human soul from the souls of animals as of divine origin. The evidence that the human soul was created, not evolved from matter, lies in the fact that man is never satisfied with sense-experience and finite things but strives to attain the infinite. Vives tends in the direction of nominalism, and emphasizes ethics as the starting-point for belief in God. The *Liber de anima* of Melancthon (1495–1560), the Protestant reformer, has been compared with Vives' work as more theological and of less importance for the history of psychology.

Ramus and Erasmus.—Pierre de la Ramée (Petrus Ramus, 1515–1572), also started an anti-Scholastic movement, although his work was cut short by the massacre of St. Bartholomew, in which he lost his life. Ramus rejected the Aristotelian logic, as then understood, and in his *Aristotelicæ animadversiones* and *Institutiones dialecticæ* undertook to formulate a new logical doctrine. He attributed to Aristotle the barren dialectical method of Scholasticism which had so long held the natural logic of the mind under restraint. He proposed an "art of disputation" to consist in the discovery of a principle and establishing its proof. As critic of scholastic methods he was a

forerunner of Bacon and Descartes. As a humanist he returned to the Latin of Cicero and Quintilian. It is said that he was murdered on St. Bartholomew's night at the suggestion of a scholastic critic. Erasmus (1467–1536), most famous representative of the new learning, figured to some extent in the history of philosophy through opposition to the barbarisms of the scholastics, his part in editing an edition of Aristotle, and in laying the foundations for Patrology by issuing editions of Ambrosius, Augustine, and other Fathers. He was the most effective of the humanists, and accomplished most in popularizing scholarly literature.[2]

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§ 37. The New Conception of the World

Cusanus.—Nicolaus Cusanus (1401–1464) was the forerunner of the scientific movement of the sixteenth

[2] Monroe, *op. cit.,* p. 378.

century. He was born in Cues (Cusa) near Treves, and was educated by the Brothers of the Common Life at Deventer. He studied law, mathematics, and philosophy, then turned to theology, became distinguished as a preacher and was made cardinal in 1448, and chosen Bishop of Brixen in 1450. His chief philosophical works are *De docta ignorantia, De conjecturis,* and *Idiota* (On the Mind). His chief interest was in human knowledge and the relation of God to the world. Distinguishing four stages of knowledge from that of confused sense-images to the insight of supra-rational intuition, he is keenly aware of human incapacity. But our limitations being known, this "learned ignorance" or knowledge of relativity is the starting-point for discriminating the truths about existence which remain possible and for the development of clues afforded by mathematical speculation. The clue to knowledge of God is in the idea of unity exalted above all opposites. God is unity, identity, *complicatio,* as related to otherness; *explicatio* in the relation of necessity to contingency. God is the realization of all possibilities, the presupposition and cause of all finite power and activity, of the evolution of the world. The dualism of God and the world is however less pronounced in Cusanus' system than the pantheism. Starting with the idea of God as infinite, Cusanus finds the universe infinite too. Within the universe, relativity rather than fixity is the clue. Place is relative; hence the theory is false that the earth is the centre of the universe. The world is neither limited nor stationary.

So too the inner life is infinite, and in a way the individual is infinite too; for each bears in itself the whole and mirrors the whole from a point of view. Cusanus taught the rotation of the earth on its axis and anticipated the principle of inertia. He introduced the conceptions of relativity and the infinite which were to be of great moment in transforming the thought of the universe, after the acceptance of the Copernican astronomy. His philosophy is also significant because it forms a link between ancient and modern times.[1]

Cardanus.—In Italy the separation between alchemy and astrology and scientific interest in nature began with Girolamo Carden (Cardan), known as Cardanus (1501–1576), a noted physician and mathematician who still held to superstitions and anti-Christian teachings in part, but who also sought purely naturalistic explanations. Cardanus maintained that there are originally three cold and moist elements, earth, air, fire, actuated by two principles, the one passive, the other formative. The causes of motion are attraction and repulsion. Fire is produced by heat, which in turn results from motion. Cardanus formulated the naturalistic principles which were later reduced to a system by Telesio.

Changing Conceptions.—Although Roger Bacon and Cusanus anticipated to some extent the point of view of modern science, they lived in an age unaccustomed to thinking about nature as a system which

[1] Höffding, *His. of Modern Phil.*, Vol. I, Chap. X; Windelband, *His. of Phil.*, p. 345; Falckenberg, *His. of Mod. Phil.*, p. 19.

may be regarded independently of theology and interest in magic. In the sixteenth century a movement began which involved in general the study of nature through observation and experiment, in contrast with the mere acceptance of books, scholastic terminology, the authority of Aristotle and the Church. It discarded the old theory of four elements, earth, air, fire, and water. It set aside the ancient conception of form and matter, and substituted the modern conception of force and matter, vaguely anticipated by Empedocles. Space ceased to be looked on as a mere void or emptiness, as in ancient atomism, and was no longer conceived apart from the matter which fills it. Heaven was no longer a region of crystal spheres around the earth; but the earth was regarded as part of one great solar system, the earth being one of the planets. According to the ancient or Ptolemaic system, which held sway for the most part despite the advanced views of the Pythagoreans, the world was regarded as a hollow sphere, with the earth at the centre and the fixed stars in the periphery. Around the earth the planets were supposed to move in epicycles. The earth was the home of man, while the heavenly region was the abode of God and spirits, with a nether region below. This scheme was admirably adapted to the plan of salvation of the Fathers and Scholasticism, sustained as it was by the authority of Aristotle, the belief that man was the centre of creation in an exceedingly small universe. The change came about with growth of interest in nature, the adoption of the new method of observation, the in-

vention of the telescope, and the enlarged conception of the universe as infinite.

Telesio.—Bernardino Telesio (Telesius, 1500–1588), regarded as the founder of the Italian philosophy of nature, was a direct forerunner of this new conception of the world. Telesio organized a scientific society in Naples, and undertook to reform natural science by substituting empiricism based on observed facts for the Aristotelian doctrine as understood by the schoolmen. He held that nature should be explained from itself and by means of as few principles as possible. Introducing the conception of force (*principium agens*) instead of Form, in his *De rerum natura,* he contrasts force, as heat and cold, with inert matter, which remains constant in quantity. The development of a scientific theory should proceed solely on the basis of knowledge acquired by sense-experience. Telesio is a sensationalist in both psychology and ethics. He ascribes sensitivity to matter, and describes the soul in mechanical terms. In the soul there is a native impulse toward self-preservation which yields the basis of ethics.[2]

Beginnings of the Mechanical Theory.—According to the ancient view, the earth and the space intervening between the earth and the moon constituted the realm of change where the four elements were in a state of motion. Weight was merely the natural tendency to descend, lightness the tendency to ascend. In the ether, beyond the sphere of the moon, the heavenly bodies continued eternally in motion in absolute

[2] Falckenberg, *op. cit.,* p. 33.

regularity, imitating the nature of God, and moving in circles because the circle is the perfect figure, invariably returning into itself. The fixed stars were moved by direct divine power, the lower spheres by the agency of the various ethereal spirits and intermediate beings conceived by Neo-Pythagoreanism and Neo-Platonism. This view appeared to be in accord with the teachings of the Bible. It was also apparently confirmed by general experience and observation, so far as the simplest facts, such as the rising and setting of the sun, were concerned. It required great effort to supplant this view. Bruno was burned at the stake for daring to question it. Galileo was persecuted and compelled to retract. Campanella was kept in prison. The radical change began with the development of the mechanical conception of nature and the promulgation of the Copernican system.

Leonardo da Vinci (1452–1519), famous as an artist and one of the great figures of the Renaissance in Italy, contributed to the change by arousing interest anew in physics, optics, and mechanics, and anticipated the principles of inertia and energy. He also pointed the way to due co-ordination between inductive and deductive methods, emphasizing mathematical deduction as the method of discovering the unknown from the known facts of nature.

Copernicus.—By contributing the first great revolutionary idea, namely, that the sun, not the earth, is the centre of the universe, Copernicus is regarded as the founder of the modern conception. Nicolas Copernicus (1473–1543) was born at Thorn, in Po-

land, studied at Cracow, Bologna, and Padua, and became canon of Frauenburg. His doubts concerning the Aristotelian-Ptolemaic system are said to have begun during his studies in Bologna. His system was in process of formulation from 1506, but he was doubtful about issuing his book, *De orbium celestium revolutionibus,* until finally he was persuaded by one of his disciples to issue it in 1543. He was suspected of heresy, and his last years were not happy. A copy of his book reached him on his death-bed, May 24, 1543, just after he had lost consciousness.

The Copernican System.—In this epoch-making work Copernicus adopts and defends the heliocentric theory of the universe, since known as the Copernican system. The ancient system seemed to him artificial, complex; by contrast he taught that nature always takes the simplest course to its ends, binding many effects to one single cause. This faith in the simplicity of nature became one of the methodological principles of modern science. Copernicus also adopted the principle of relativity which had been suggested by Cusanus. Thus in the case of motion in space it may be that the thing perceived is moving or it may be that the percipient himself is in motion. Again, both thing and percipient may be moving at different velocities or in different directions. Thought may well start therefore with the assumption that the earth, from which we perceive what is taking place in the universe, is in motion. This assumption leads to the new world-view, which Copernicus demonstrates mathematically by taking the sun as the central point,

round which move the planets; while the earth is regarded as turning on its own axis. Copernicus still conceived the universe as finite, although he leaves this question undecided. He also held to the view that the planetary orbits are circular, and that there is a circle of fixed stars which is to be taken as absolute in relation to all planetary motion. But he described the universe as it appeared from the given point of view, fearlessly following reason, and with little regard for possible objections in behalf of the ancient hypothesis.

Tycho Brahe and Kepler.—The Danish astronomer, Tycho Brahe (1546–1601), by calculating the true distance of the planets, made secure the proposition that the planets revolve around the sun, and prepared the way for Kepler by supplying data based on accurate observation. Johann Kepler (1571–1631), who corrected a great number of observations on the motions of the planets, by long study of the data formulated the laws which describe the motions, and showed the correctness of the Copernican theory. Kepler's discovery showed that the planets describe an ellipse with the sun in one focus. Kepler made this discovery through efforts to find an exact basis for his conception of the divine arithmetic and geometry. His first work, *Mysterium cosmographicum*, 1597, was based on theological and Pythagorean ideas. He regarded the universe as a harmony, aesthetic in character. Later, by formulating the results deduced from Tycho Brahe's observations, he developed the quantitative ratios on the basis of the facts of experi-

ence, and eliminated all assumptions not based on scientifically observed facts. Hence he substituted real causes for his former notions of planetary souls, and adopted without qualification the point of view of natural science, taking the mathematical sciences as the standard for all scientific knowledge. Kepler's great discovery of the laws of planetary motion made him one of the founders of exact physical science.[3]

§ 38. The Mechanical Theory. Galileo

Galileo.—The greater founder of modern science was Galileo Galilei (1564–1642), who contributed the modern methods of scientific observation, and accepted the Copernican system in full. Free from scholastic and speculative theories, Galileo directs attention from mere words, opinions, tradition, authority, to the study of actual things by means of carefully observed facts and well-established principles. He regards sense-experience as the starting-point of knowledge. Science is to proceed by means of demonstrations based on experience and leading to induction. Qualitative changes can only occur by means of quantitative. Everything is to be measured which is measurable, and things which are not measurable are to be reduced to indirect measurement. Form, magnitude, motion, and rest are the primary and real attributes of things. Since matter cannot of itself pass from rest to motion, a body tends to remain in its given state unless affected by external influences. Galileo proved the principle of

[3] References at end of § 38.

inertia by precise experiment, and discovered the laws of projectiles and falling bodies. In his *Discorsi* (1638) he develops the theory of motion which lies at the basis of modern physics. By his method of resolution or analysis he seeks the simplest processes of motion capable of being mathematically determined, and by his method of composition or synthesis he shows that the implied mathematical theory leads to the same results which experience exhibits.

Discoveries and Inventions. — He invented the hydrostatic balance, the thermoscope, and microscope. Employing the idea of motion in space as the true conception, he applied exact methods to the study of motion, and declared that the constant element is measurable motion. Galileo is credited with the creation of mechanics as the mathematical theory of motion. He improved the telescope, and was the first to use it in the study of the heavenly bodies. By its aid he made discoveries which completely established the truth of the new astronomy, namely, the discovery of the resemblance of the moon to the earth, the satellites of Jupiter, the rings of Saturn, the changing phases of Venus and Mercury, resembling those of the moon, and the spots on the sun and their motion. It thus became clear that although the sun is not the motionless and absolute centre of the universe it is the centre of our planetary system.

Heresies.—Galileo was condemned by the Church for holding that the earth moved. This doctrine was declared to be "absurd, heretical, contrary to the text of scripture," and Galileo was compelled to recant.

He tried to defend himself on the ground that scripture is not science: it appears that when we have to do with natural effects brought under our eyes by the experience of our senses, or deduced from absolute demonstration, these can in no wise be called in question on the strength of scriptural texts that are susceptible of a thousand different interpretations; for the words of scripture are not strictly so limited in their significance as the phenomena of nature. Galileo did not directly consider the charge of absurdity and heresy. The serious offence on his part was contradiction of the belief that the earth does not move. Galileo tried to avoid the difficulty by drawing a comparison between the Ptolemaic and Copernican systems in his *Dialogo sopra i due massimi sistemi del mondo* (1632), without ostensibly taking sides, and when brought to trial denied that the *Dialogo* violated any promise regarding the Copernican system. But the Copernican theory had been condemned by the Church and placed on the Index in 1616, and in 1633 Galileo was compelled to renounce that system. He was kept under a surveillance which amounted to imprisonment till his death in 1641.

The reasons for this opposition centre about the fact that the position of man as the centre of creation was seriously jeopardized. The authority of the Church depended on the Aristotelian and Ptolemaic conception of the universe: with the earth regarded as the centre, everything was made to revolve about the City of God on earth, with hell below and the saved in heaven above, beyond the circle of the fixed

stars. The full force of the "hypothesis" set forth by Copernicus was not at first realized. Galileo publicly declared in favor of this hypothesis in 1613, when explaining his discovery of the spots on the sun. But it was not until 1616 that he was made to promise not to defend the Copernican system. The *Dialogo* made the evidence more convincing, Galileo was again tried, his *Dialogo* was forbidden, and under threat of torture he was obliged to abjure the theory that the earth is not the centre of the universe, and to deny that the earth moves. Evidently, Galileo endeavored to do the best he could under the circumstances by terming his conclusions "hypothetical," with the hope that science might be permitted to go on its way.

Galileo's Method.—The laws underlying the science of mechanics had been formulated. Galileo had put Democritus above Aristotle as a man of science, and the way was prepared for introducing anew the atomic theory as a general principle.[1] In contrast with the ancient argument that bodies fall to the earth because of the inherent "heaviness," the "place" of heavy bodies being below, that of the light above, the inference being that the heavier a body is the more rapidly it will fall; Galileo dropped light and heavy bodies from the Leaning Tower of Pisa, and proved that light and heavy bodies reach the ground together so long as the lighter body is not so light as seriously

[1] Pierre Gassendi (1592–1655) brought forward atomism as a general principle; and Robert Boyle (1627–91), in his work *The Sceptical Chemist,* introduced the atomic conception into chemistry, and freed chemistry from bondage to Aristotle and the alchemists.

to be kept back by the resistance of the air. Galileo then proceeded by experimental tests to ascertain the law of falling bodies. His method was first to think the matter out till he was able to develop a theory or principle of explanation which could be put to the test by experiment. Thus in contrast with the supposition that there must be vortices to maintain the motion of the planets, he showed that a body left to itself moves on in a straight line with uniform velocity: what is called for then in the case of the planets is an explanation of the continual deviation from the straight course involved in the planetary orbits.[2] That is, some force must be acting, drawing the planets toward the centre. This conclusion prepared the way for Newton (1642–1727), who formulated the law of gravitation in 1682.

Other Discoveries.—Meanwhile, Napier discovered logarithms in 1616; Harvey, the circulation of the blood in 1626; Torricelli, the barometer; Guericke, the air-pump in 1650; Pascal, that air has weight, 1650; and Roemer, the velocity of light, in 1670. The method of science was more widely established when Newton began to study the fall of the moon towards the earth, with reference to the moon's circular motion. The result was the formulation of the law that each particle of matter attracts every other particle with a force that varies inversely as the square of the distance. The prime result was confirmation of the mechanical theory of the heavens. The publication of Newton's *Principia,* in 1687, has been called the

[2] See Höffding, p. 173; Falckenberg, p. 59.

greatest step ever made known in knowledge. Newton also offered the first satisfactory demonstration of the complex nature of white light, and was the first to resolve it into its colored constituents by passing it through a prism; and he saw the necessity of a subtle medium or ether for the transmission of light waves.

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§ 39. Bruno and Campanella

Life of Bruno.—We have noted the fact that Copernicus was inclined on the whole to regard the universe as finite. It was Giordarno Bruno who made the decisive step in philosophical theory from a finite to an infinite universe. Bruno was born at Nola, in Campania, in 1548. At an early age he joined the Dominican order, but being regarded with suspicion because of heretical views, and restless under monastic rule, also dissatisfied with scholasticism, he fled from the cloister, and wandered through Italy, France, England, and Germany. He published his *Della Causa, Principio ed Uno,* and *Dell' Infinito Universo* in London, 1584. Less satisfied with Protestantism in Germany, with its many popes, than with Catholicism, he returned to Italy, 1592, was arrested by the Inquisition at Venice, and burned at the stake in Rome, 1600.

Bruno was one of the most profound and brilliant, certainly one of the most courageous thinkers of the Renaissance period.

Bruno's Philosophy.—Adopting the teachings of Cusanus and Telesio, notably the idea of relativity, Bruno based his philosophy on complete acceptance of the Copernican astronomy. But he rejected the antithesis between the celestial and the terrestrial, the theory of a motionless circle of fixed stars separating our world from the extra-mundane region; and declared that space is infinite, is traversed by innumerable bodies. Since there are many suns surrounded by planets, formed of the same materials as our earth, and accompanied by their satellites, no heavenly body can any longer be regarded as the centre. There are no boundaries. There is no absolute position. It is impossible either subjectively or objectively to set bounds to the universe: the horizon forms itself anew around every spectator, and much depends on the point of view, both motion and time being relative. Heaven and earth being no longer separated, as had been supposed throughout the Middle Ages, the same forces are said to be everywhere in operation, with the same conditions prevailing, and everything interconnected. The universe is indeed infinite.

There is then one all-embracing World-soul active in the ether, in place of the many alleged directive beings. As there can be but one infinite, God is the sum of all being, the ultimate principle or eternal cause of all things (both cause and effect being infinite). Infinite perfection is expressed in infinitely

many worlds and creatures. God is the universe, as well as its formal, efficient, and final cause. But Bruno distinguished between God as source (*natura naturans*: implicit); and God made manifest as the world of phenomena (*natura naturata*: explicit). The uniformity of nature as investigated by science is the divine harmony of its innermost structure. There was no creation out of nothing, but there is everywhere immanent causality: in everything there is an impulse to motion, a will or life. Movement in space is the principle of all change; matter is conserved, it persists through all the changes of form, as one original substance. But this original substance is for Bruno not simply the matter of Galileo's mechanical theory of motion. Bruno is interested in the universe as the manifestation of God, in teleology amidst mechanism, the divine causality implied in natural law. The atoms of which things are constituted are not absolute, but there are different degrees of atoms, expressing will. The universe is to be interpreted optimistically or poetically, as expressing the divine substance in manifold forms. Any alleged break or defect in the system as observed disappears in the beauty of the whole, when the universe is envisaged as the life of God. Law reigns everywhere. There is no freedom. Man ceases to be the centre of creation, and finds his place in the total system of which God is the eternal substance. Even the creation of the world was an incident in the total universe, in no way modifying the creator's life. The new astronomy finds an illimitable field in this system of countless

worlds, as Bruno conceives it. God is also regarded as the vital principle of the smallest as well as the largest beings, and so each individual is in essential nature the deity, each mirrors the life of the whole. Individuals regarded in the smallest degree are minima or monads, each corporeal and soul-like, consisting of matter and form, and each eternal. All nature is alive in minute structure, therfore, as in its infinitude in space and time. There is no dead matter. The world-soul permeates all things, the whole universe is a living organism. God, as the monad of monads, the soul of all souls, is the essence of all particular essences: God is to be worshiped in the universe, not in respect to heaven alone.

Campanella.—Thomas Campanella (1568–1639), born in Calabria, and like Bruno a Dominican, was arrested on unfounded suspicion of conspiring against the Spanish rule, and spent twenty-seven years in a dungeon. In part a disciple of Greek scepticism, in part a follower of Cusanus and Telesio, he was an enthusiastic student of nature, and interested in the conditions of knowledge. He started with the certitude of the inner sense, and from this proceeded to the certitude of God's existence. God is omnipotence, omniscience, and infinite love. Sensation is connected with all things, all parts of the universe possess souls; everything loves and hates. Plants are motionless animals. Corporeal motion is due to an unconscious impulse of self-preservation. All things strive toward their original source in God.[1]

[1] Höffding, *op. cit.*, Vol. I, p. 130, foll.; Fischer, p. 109; Falckenberg, p. 36.

§ 40. New Ideas of the State. Machiavelli. Grotius

Machiavelli. — The new consciousness of the world awakened during the Renaissance also involved a changed attitude toward the State, apart from its relationship to theology, its dependence on the Church as the dominant institution. Nicolo Machiavelli (1469–1527), leader of new political thought in Italy, is one of the most striking figures of the time. Coming from one of the old Florentine families, he engaged in the diplomatic service of the republican government of Florence, earnestly studied men and affairs, and as eagerly sought the means for restoring Italy to its ancient power. Profoundly patriotic, his eyes were single to the unity and greatness of Italy. Finding his clue in this strong *national* feeling, he developed a modern theory of the State by demanding its complete separation from the Church, by separating all spiritual and secular interests, and conceiving the State in purely naturalistic terms. Negatively speaking, he combated the temporal sovereignty of the pope. He found his positive clues by the study of history, by comparing the Italians of his age with great periods in the past, notably in ancient Rome, in which there had been no softening influences of the Church and Christianity. He found that honor, magnanimity, and physical prowess were not appreciated in his day as of old. His theory of the State as set forth in his work, *The Prince*, involved the acquisition and preservation of princely power by means of

utilitarianism. That is to say, the end justifies the means, even though the means conflict with the accepted morality. Christianity is inferior to the religion of ancient Rome because it does not inculcate the political virtues.[1]

Jean Bodin.—In England, Thomas More (1478–1535) proposed in his *Utopia* a type of republic to be governed for the happiness of all. He was imprisoned for eighteen months in the Tower, then executed on the charge of attempting to deprive the king of the title of supreme head of the Church in England. Jean Bodin (1530–1596), a learned Frenchman, one of the founders of the modern theory of natural law, held that the contract by which the state is founded is an act of complete submission of the common people to their ruler. Hence he contended for the unconditional authority of the royal power. His *Dialogue of Seven Wise Men* is a remarkably fair discussion of typical religious points of view, all of which are compatible with what he regards as religion in its essence. Thus Bodin is the forerunner of tolerance.

Grotius.—The Dutch political writer, Huig van Groot, known as Grotius (1583–1645) published in 1625 his *De jure belli et pacis,* which marks a great advance in political theory. Distinguishing between divine and human rights, he finds that divine rights depend on revelation, while human rights depend on reason. Natural law is eternal, unchangeable, everywhere the same, is rooted in the nature of man; while

[1] *Cambridge Modern History,* Vol. I; Villari, *History of Machiavelli and his Times.*

positive law is historical, is acquired by voluntary enactment. Man is by nature social. Hence human beings congregate in response to a native impulse. As rational beings, men possess this social impetus. But in the original state of nature all things belonged to all. The principles of government on which society later became organized involve certain pledges by tacit or actual contract, implying a primitive promise. By their political contract the people submit their rights and authority to rulers, but they have the power to renounce the sovereignty which they have conferred. Grotius is known as the founder of international law. He advocated the separation of Church and State, also religious tolerance.[2]

§ 41. Scepticism in France. Montaigne

Montaigne. — The humanism of France in the sixteenth century was given literary expression in the *Essays* of Michel de Montaigne (1533–1592), who, free from tradition and authority of all kinds, wrote about himself unreservedly as an individual. Montaigne was the earliest and most ingenious exponent of the philosophy of doubt in his country. The first literary works of their kind, his *Essays* combined keenness of observation and thought with boldness of utterance and elegance in expression. His thought is at first sight sceptical to the limit. He finds the senses uncertain and subject to error, yielding no secure principles, unable to disclose the nature of the world except in a

[2] Sidgwick, *His. of Ethics*, p. 160; Höffding, *op. cit.*, p. 52.

remotely relative way. We are even cut off from knowledge of any natural law observed by all men. There is a diversity of individual views concerning the world, with no universally admitted knowledge. Human reason is feeble and blind, its knowledge deceptive and dependent on tradition, so that we are unable by the aid of reason to arrive at fixed principles. But the doubter at least is free. The positive content in Montaigne's thought is disclosed by his reverence for Nature in her grandeur and infinity.[1] Granted knowledge of our limitations, we may learn wise adaptation to the great whole, giving Nature free course through us. Thus individualism grows out of careful observation of events going on within us, by recognition of the "ruling form" through which Nature speaks in each of us. Thus scepticism signifies the right of each individual to think and judge for himself.

Pierre Charron (1541–1603), originally a lawyer but afterwards a preacher, was influenced by Montaigne, and in his book, *De la Sagesse* (1600), he defends human nature as the foundation of ethics and politics, laying stress on the ignorance which is recognized by keen self-knowledge. Doubt has a double object: to keep the spirit of inquiry alive and to lead us toward faith. We are born to seek rather than to possess truth. Emphasis belongs on the practical side of Christianity, in the fulfillment of duty. Francis Sanchez (1562–1632), a Portuguese by birth, who taught in Toulouse, revived Pyrrhonism (radical

[1] Höffding, *ibid.*, p. 29.

Greek scepticism) in scholastic form, and demanded a new knowledge, free from the encumbrances of tradition. Although absolute knowledge is out of the question, knowledge of secondary causes is obtainable by observation and experiment.

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Thilly, *History of Philosophy,* p. 241; Höffding, *History of Modern Philosophy,* pp. 38–58; Falckenberg, *History of Modern Philosophy,* pp. 39–48; Lecky, *Rationalism,* Chap. V.

§ 42. The Religious Reform. Böhme

The Reformation.—The details of the Protestant Reformation, its causes, its principles, and the different forms which it assumed, belong to ecclesiastical history.[1] The Reformation is significant for the history of philosophy as one of the results of intellectual changes long in progress in the latter part of the Middle Ages, as a chief factor in the period which follows humanism in Italy, and as a forerunner of the freer thought of modern times. The far-reaching changes involved in the reaction against Scholasticism would never have attained their climax unless the revolt had been definitely religious as well as literary, scientific, and political. Scholasticism grew out of religious and doctrinal interests; and the rejection of ecclesiastical orthodoxy, with papal authority, had to be religious as well as doctrinal to be complete. If Protestantism

[1] See *Ency. of Ethics,* X, 609; Lindsay, *His. of the Reformation;* Creighton, *History of the Papacy;* Beard, *Martin Luther and the Reform in Germany;* Smith, *Life and Letters of Martin Luther;* Smith, *Erasmus;* Fischer, *op. cit.,* p. 136.

by its appeal to scripture, its new learning, and new leadership presently substituted new authorities for old, its appeal was on an intelligible philosophical basis recognized in part even before the Reformation, namely, through recognition of the truth that the knowledge of God is intimate and personal, that any man whose spiritual experience is impressive may help by precept and example, that the right of private judgment belongs to man, and that reason as well as faith is a guide to spiritual truth.

Mysticism had been for some time heterodox as well as orthodox, and had accomplished its part in breaking down Scholasticism. Reason and faith were in a state of tension all through the Middle Ages, and only the firm adherents of the Thomistic system accepted the medieval classification of their deliverances as final. Heresies had appeared and been condemned, but they lived on as surely as did the Copernican astronomy when Galileo was compelled to recant. The religious reformers looked back to the early Christian Fathers as well as forward to a dawning freedom. Luther reverted to Augustine as to Paul, and expounded what seemed to him the original content of Christianity. It is notable too that the mystical element of thought was early prominent in Luther's life. Luther was not only greatly impressed by Tauler and Thomas à Kempis, but he published the anonymous *German Theology,* in 1518. Eckhart was a pioneer in religious reform when he ventured to preach the direct gospel of inner experience to the common people, in their own tongue.

Whatever the deviations of the reformers who adopted literalism and formal systems of theology, it was the mysticism of German Protestantism which held resolutely to the principle that inner experience involving regeneration is the test of religious realities.[2] Schwenkfeld and Franck held fast to this pietism. The historical elements in Christianity, with its ceremonials, were brought in contrast with the living Word of God, which was regarded as the real revelation.

Böhme.—One of the profoundest religious thinkers of the period was Jacob Böhme (1575–1624) the cobbler, who was born at Altseidenberg, near Görlitz, and who, without any early training, ignorant of all languages save his own, wrote a notable philosophical work, *Aurora*. Böhme knew only the Bible and the writings of Valentine Weigel (1533–93) who also belongs with the mystics.[3] Praying earnestly to be enlightened, Böhme diligently studied the scriptures, and was rewarded on three occasions by what seemed to him a revelation of the inmost centre of the human spirit.[4] As a believer in the Copernican astronomy, he rejected the notion that either the earth or man is the centre of creation. The great consideration is the universal order in which man's part is small indeed. Unlike those who had assumed that the divine nature is a bare unity above all distinctions, he regards the divine as the differentiated ground of all multiplicity and all contrasts. This affords him a clue to the origin

[2] Cf. Falckenberg, p. 51, foll.
[3] Cf. Inge, *op. cit.*, p. 274.
[4] Cf. Inge, *ibid.*, p. 277.

of evil, which he transfers from man to God by describing the divine life as a process which advances from an unrevealed to a revealed condition. The divine unity involves opposition as well as difference, hence conflict, a far-reaching dualism. As a dark vessel reveals the brightness of the sun, so the element of evil in the divine nature reveals the divine goodness. Without evil there would have been no life or movement, no distinctions, not even a revelation; all would have been bare uniformity. The constant duality of the divine nature extends through all living beings. God is the "all-knowing, all-seeing, all-smelling, all-tasting" Spirit, at once the absolute and concrete. The creation of the material world was a result of the dualism of elements in the divine nature. The fundamental trouble with man is due to the effort of the mere individual to become the whole. Heaven as surely as hell begins here on earth, however, and for man there is complete salvation from this sheer self-assertiveness.[5]

Herbert of Cherbury.—In England the philosophy of religion on a naturalistic basis began to become prominent with the teachings of Herbert of Cherbury (1582–1648) who taught that religion belongs with the inborn possessions of man.[6] There is in man an immediate sense or instinct which guides him to certain truths. Thus the idea of God corresponds to a demand of reason, and these inner de-

[5] Höffding, *op. cit.*, Chap. VIII; Windelband, *His. of Phil.*, pp. 367, 370, foll.
[6] See Höffding, *ibid.*, p. 64, foll.

mands stand over against the dogmas which have been accepted on external authority. The *consensus gentium,* or that which all men believe in response to inner demands, is the standard. Out of the cardinal propositions which we adopt as intuitively certain can be developed all the principles needed for a pious life, the atonement for sin, and the worship of God. Cherbury's *De veritate* (1624) was for many years the text-book of natural religion. Out of Cherbury's teachings grew the deistic controversy.

Retrospect.—Thus after centuries of controversy the philosophy of religion regained the position which the Greeks readily adopted unhampered by controversies over dogma. The schoolmen, having first used reason to justify faith, on the ground that revelation pertains to a higher sphere, eventually assigned philosophy as a whole to what appeared to be its final place. Thus the triumph of the Church seemed complete. But the greater Greeks had already attained the level of spiritual intuition or inner vision, the content of which was so splendid that the Greek Fathers presupposed a revelation which came to Plato and other philosophers, as well as to the writers of the Bible. It was even assumed that Socrates and Plato must somehow have acquired the inspired teaching of Moses, or must have enjoyed an equivalent revelation. Then too the Logos doctrine came from Greek sources, and it was a simple matter to identify this with the Christ. Unwittingly, the Greek Fathers Hellenized the gospel. Very readily, the intellectual forms, the system, the modes of reasoning were taken over into

Christian thought, to make the Bible rationally persuasive. Moreover, another stream of influences springing from Neo-Platonic sources commingled with the Christian stream, and Christian Platonism became the established philosophy. Why should any distinction be drawn between Greek naturalism, culminating without a break in Platonic idealism and the beatific vision of Plotinus; and Hebrew doctrines, identified in the beginning with crude myths, and culminating in the Christ, so readily identified with the Logos, which seemed to Clement and Origen the source of all revelation?

For the history of philosophy the significant fact is that the liberalism of Clement and Origen did not prevail. With Augustine began the more definite intrusion of the demands of faith, in order to sustain the doctrines of original sin and redemption. But with the incoming of mysticism there was a gradual return to freedom in religious experience and thought. Whatever judgments may be passed on mysticism as a doctrine, the mystics claimed the right to go to the original sources in the realm of religious experience, as indeed the pioneers of the new philosophy of nature in Italy claimed the right to study nature at first hand. The prime result in both cases was the return to empiricism. Authority did its utmost in its efforts to stem the tide by burning Bruno at the stake and compelling Galileo to recant. Philosophy once more gained the right to study the nature of things at first hand and arrive at *the principles demanded by the facts* by way of description, explanation, and inter-

pretation. With Duns Scotus it insisted on the law of parsimony. With Copernicus it insisted on simplicity. With Galileo it also claimed the right to push quantitative considerations as far as possible. Thus the differentiation of the special sciences, begun by Aristotle, was resumed. The history of science becomes a discipline by itself, with the age of Newton. The philosophy of religion is also differentiated. Psychology as a special science was partly anticipated even before the dawn of modern philosophy. Philosophy was free, with Descartes, Spinoza, and Leibnitz, to systematize its first principles in terms of the new conception of the universe, infinite in space and time.

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